APPENDIX C

ENVIRONMENTAL

FINAL REPORT

OKALOOSA COUNTY, FLORIDA
COASTAL STORM RISK MANAGEMENT

Integrated Feasibility Study
With Environmental Assessment

Okaloosa County Coastal Storm Risk Management Study

Environmental Appendix C

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Okaloosa County Storm Reduction Management Study

Offshore Borrow Material Resources

Introduction

Okaloosa County's consultant, Taylor Engineering, Inc., conducted reconnaissance and design-level offshore sand investigations to identify suitable beach-quality sand for use along the Okaloosa County coastline (October 2009). The horizontal and vertical boundaries of the borrow areas were identified by analysis of geophysical surveys in combination with vibracore sampling to obtain representative sediment data. Because individual vibracores contain sediment with different characteristics depending on the part of the deposit they penetrate, the final placed sand characteristics will vary based on the dredge prism design. Composite grain size distributions, shell content, fines content, and Munsell color data of the borrow areas were used to determine compatibility with the native beach sand. Taylor Engineering's investigations identified two potential borrow areas, OK-A and OK-B. Borrow area OK-A is located approximately 1.5 miles south of Okaloosa Island and is thought to be a paleo ebb-tide deposit (Stone, 2007). Borrow area OK-B is located approximately 7.1 miles south of the City of Destin and is thought to be a transgressive sand shoal (Stone, 2007). See Figure 4 for locations. Both borrow areas are located in Florida state waters. Taylor Engineering permitted OK-A through the Florida Department of Environmental Protection (FDEP) for use by the County for several projects. OK-B has not been permitted by the County. However, should the County decide to permit OK-B in the future, Taylor Engineering has obtained the majority of the data necessary to permit it. FDEP would likely require updated bathymetric surveys and potentially additional vibracore samples to verify the original design data.

Borrow Area OK-A

Borrow Area OK-A is approximately 700 acres in size and has an FDEP-permitted dredge elevation of -49.4 feet. It has been used for three previous nourishment projects and is estimated to contain approximately 5.1 million cubic yards (mcy) of usable material in the uncut portion of the borrow area. This quantity is based on a 2020 survey conducted by USACE. While the majority of the borrow area resides in Florida state waters, a narrow section of OK-A overlaps the Gulf Islands National Seashore boundary as shown on NOAA chart 11388 (Choctawhatchee Bay and Approaches). Borrow Area OK-A is found in water depths ranging from 37 to 53 feet. The borrow area consists mostly of medium to fine grain quartz sand with an average grain size of 0.31 mm. Fines content is 1.3%, and carbonate percentage is 3.8%. The color of the borrow area is described as having a moist Munsell color of 5Y 7/3 or lighter for most of the deposit.

Material from this borrow site was used for beach placement along lands managed by Eglin Air Force Base. Although sample testing determined the shell content to be within an acceptable 2 percent of total content, some local beach users have specific complaints that the shell content placed at that location was excessive. Some

mitigation methods to reduce the shell content include screening during placement, screening again post-placement, or selecting another sand source.

The FDEP has stated to Taylor Engineering and to USACE that OK-A can be re-permitted at a deeper cut elevation once the -49.4 ft cut elevation material has been exhausted. There is an estimated 9.3 mcy of suitable sand below the current cut elevation, but this volume includes areas that might not be thick enough to dredge efficiently and the overall volume would be reduced based on the final design of the dredge prisms.

Borrow Area OK-B

Borrow Area OK-B is another potential sand source that was identified by Taylor Engineering, Inc. during their sand source investigations. This borrow area is located approximately 7.1 miles offshore and is approximately 806 acres in size (Figure 1). Water depths range from approximately 68 to 71 feet deep. Taylor Engineering conducted similar investigations in this borrow area as it did for OK-A. Data collected from samples at this site indicate the material meets the FDEP administered Florida Sand Rule (F.A.C. 62B-33.005(7)) for beach placement. However, there are two main reasons that the site was not permitted. First, the longer distance to placement site affects dredging costs. Second, its composite Munsell color is slightly darker than the OK-A borrow site material. Therefore, Taylor Engineering permitted OK-A for the county's nourishment projects. The OK-B borrow site could be used for supplemental material in the event that OK-A is completely exhausted in the future. Approximately 15.2 mcy of beach-compatible sand is estimated to be present within the boundaries of OK-B at a cut elevation of -74.5 feet NAVD88. The composite mean grain size is estimated at 0.30 mm, with visible shell content of around 2 percent and carbonate content at approximately 5.1%, and greater than 72 percent of the samples having a Munsell color of 5Y 7/3 or lighter. If the county decides to permit this site in the future, it may require updated condition surveys and possibly some additional geotechnical investigation to verify the original investigation results.

Figure 1 Okaloosa County Offshore Borrow Areas

Okaloosa County Coastal Storm Risk Management Study
Supplemental Information for
Cultural and Historic Resources

Archaeological and cultural resources are broad terms generally used to discuss the tangible, and often intangible, aspects of the past including Native American and post-European contact histories. The present discussion, however, is focused specifically upon historic properties. While, all historic properties can be categorized as archaeological or cultural resources, historic properties represent a specific class of resources deemed particularly significant and have been listed, or are eligible for listing on the National Register of Historic Places (NHRP). To be determined eligible, a historic property must be meet at least one of four criteria for significance and at least 1 of 7 aspects of integrity established by the National Park Service (NPS).

The National Historic Preservation Act (NHPA) has defined historic properties as pre-Contact and historic archaeological sites, structures, buildings, districts, objects or any other physical evidence of human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. Several Federal laws and regulations protect these resources including the NHPA of 1966, the Archaeological and Historic Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990.

Section 106 of the NHPA and its implementing regulations, 36 CFR § 800, require an assessment of the potential impact of an undertaking on historic properties that are within the proposed project's Area of Potential Effect (APE), which is defined as the geographic area(s) "within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist."

The APE for the current study is discontinuous and includes two areas. The first is where shoreline protection measures would occur and the second includes two offshore borrow sites (OK-A and OK-B) were dredging for sand would occur; see Figure 1. Project related construction will involve pumping sand dredged from the borrow sites on to the shorelines of Okaloosa Island and West Destin to restore dunes and beach berms. When completed, these will measure 14 foot (ft) high and 10 ft to 30 ft wide along stretches of Okaloosa Island and West Destin coastlines, respectively. The beach dune and berm construction areas on Okaloosa Island and in West Destin and the boundaries of borrow sites OK-A and OK-B comprise the APE for the proposed Project. The Okaloosa Island portion of the APE covers 50 hectares (ha) (124 acres) and is 5.8 kilometers (km) (3.6 miles) long and averages 115 meters (m) (377 ft) wide. The West Destin APE covers 99 ha (245 acres), is 12.9 km (8 miles) long and averages 117.4 m (385.2 ft) wide. OK-A is located 2.4 km (1.5 miles) south of Okaloosa Island, covers 284 ha (702 acres), and contains approximately 5.1 million cubic yards (mcy) of

usable sand. OK-B is 11.3 km (7 miles) off the of the Destin coastline covers 326 ha (806 acres), and contains 6.4 mcy of usable sand (see Figure 1).

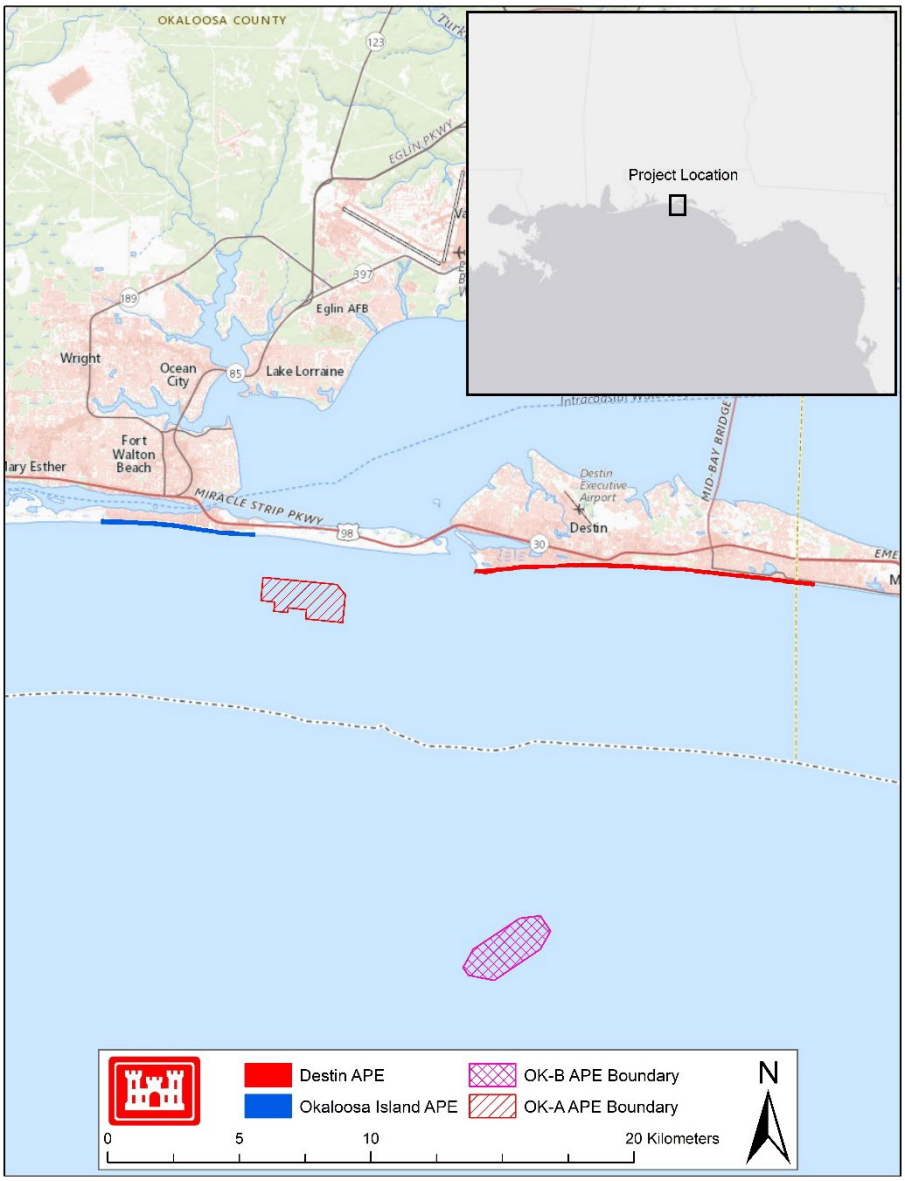

Figure 1. Map of project location and APE boundaries.

Environmental Context

It is important to consider the environment context in regard to expected types of cultural resources that could potentially be present with the APE. As the APE occupies offshore and shoreline areas of the Gulf of Mexico, the primary cultural resource site types expected within the APE include pre-Contact Native American archaeological sites and submerged shipwrecks. The region surrounding the project area lies upon Citronelle Formation sediments deposited during dynamic interglacial sea level fluctuations which occurred 1.2 million years ago. Santa Rosa Island and the peninsula on which West Destin is located are remnants of the final period of glaciation and

feature sandy soils that average 80 inches deep. Common vegetation in this environment include sea oats (*Uniola paniculata*), the stunted or Choctawhatchee sand pine (*Pinus clausa* var. *immuginata*), and sand live oak (*Quercus geminata*) (Lydecker 2008:5).

Hurricanes are a relatively common occurrence in the Florida Panhandle where multiple storms have made landfall in a single season to devastating effect. Evidence for the frequency storms in the region is preserved in sediments in Lake Shelby, Alabama that extend back 680 years which highlights a particularly intense period during the early 1500s. This has only been rivaled by storm frequencies observed during the last 50 years since 1970 (Wharton et al. 2014:2-16).

Since the late 1900s changing environmental conditions have resulted in the dramatic beach erosion along the Gulf Coast of Florida. State and municipal governments have attempted to address this problem by artificially renourishing beaches. These beach renourishment projects pumped sand obtained from dredging navigation channels and other offshore borrow areas onto eroded beaches to build up former dunes, upper beach areas, and nearshore zones (Wharton et al. 2014:2-20). In 2006, following impacts of hurricanes Ivan in 2004 and Dennis in 2005, 950,000 cubic yards of sand was placed within a 5 km (2.1 mile) long portion of critically eroded beach in the West Destin portion of the APE (FDEP 2020).

Cultural and Historical context of Choctawhatchee Bay Area

Genrally, the Florida Panhandle and Choctawhatchee Bay region contain rich and varied array of archaeological sites representing almost all eras and periods of human settlement and occupation. The pre-Contact Native American, or pre-Contact Period, begins with the arrival of the first people to the region during the Paleoindian Period at around 12,000 years ago. This long period has been further divided into subperiods and is largely defined by the study of archaeological materials and sites. Through analyses of these materials a sequence of cultural evolution has been proposed based upon changes in the archaeological record through time. These changes have been attributed to technological innovations, changes in resource exploitation strategies, shifts in settlement patterns, and ideological developments that occurred through time as past Native American populations adjusted to changing climatic conditions and as populations increased. The pre-Contact period ends with arrival of the Spanish in 1528. This post-European Contact, or historic period, has also divided into different sub-periods based on past events such as Spanish Exploration, Spanish and British colonialism, American independence and the expansion of American interests. The chronology of the pre-Contact and early historic periods in the study area is summarized in Table 1.

Table 1. Prehistoric, Protohistoric, and Historical Cultural Sequence for Northwest Florida, Table 1, Lydecker 2008:5.

Stage	Period	General Dates	Culture
Paleoindian		12,000—8,500 B.C.	unnamed
	Transitional	8,500—8,000 B.C.	Dalton
Archaic	Early	8,000—5,000 B.C.	Kirk/Bolen
	Middle	5,000—3,000 B.C.	unnamed
	Late	3,000—1,000 B.C.	unnamed
Gulf Formational	Middle—Late	1,000—500 B.C.	Elliot's Point Norwood
Woodland	Early	500 B.C.—A.D. 300	Depford
	Middle	A.D. 300—450	Santa Rosa/Swift Creek
	Late	A.D. 450—1000	Weeden Island
Mississippian	Early—Middle	A.D. 1000—1500	Fort Walton: Litte's Bayou and Indian Bayou phases; Pensacola: Bottle Creek phase
	Late/Protohistoric	A.D. 1500—1700	Fort Walton: Fourmile Pt. phase; Pensacola: Bear Point phase
Colonial	First Spanish	A.D. 1528—1763	Spanish Colonial, Protohistoric, and Early Historic Aboriginal
	British	A.D. 1763—1781	British Control
	Second Spanish	A.D. 1781—1821	Spanish Colonial, American Colonial
Early American	Territorial-Civil War	A.D. 1821—1865	American

Following the Civil War the Florida Panhandle saw extensive economic development and the expansion infostructure. Initially this included the reestablishment of railroad lines to link the gulf coast of Florida with regional markets and the improvement of navigational aids which also led to the further developments in trade and commerce. An Inland Waterways Commission was appointed in 1907 which authorized surveys of potential routes and canals to link various gulf coast communities. Development of these routes was authorized in 1910 with the Rivers and Harbors Act (Wharton et al. 2014:3-41).

Continued economic development necessitated continual improvement of transportation infostructure. With the increased use of automobiles, roads following routes established during the Spanish Colonial period were built along with various bridges to better connect gulf coast communities in the late 1920s and early 1930s. These transportation improvements bolstered the coastal economy which featured agriculture, manufacturing, and fishing. Agricultural relied on cotton and timber and turpentining were also important during this period. Tourism also developed as an important part of the economy following the Civil War and the Louisville Nashville Railroad, that linked to the Pensacola and Atlantic Railroad in 1881, published brochures touting the beauty of

the Gulf Coast and various hotels and boarding houses were built at the end of the nineteenth century. Tourism continued to expand during the first half of the twentieth century as more bridges were built to ease access to gulf beaches. Other facilities were built for tourists such as casinos, restaurants, and fishing piers (Wharton et al. 2014:3-44).

Since the city of Pensacola was established early during the Spanish Colonial Period, the military always played an important role in the economic development of the area. Following the Civil War in the late 1800s the Pensacola Navy Yard was rebuilt, but, subsequently destroyed by storm surge in 1906. In 1913, recognizing the importance aviation in future warfare, the Navy built the Pensacola Naval Air Station (NAS) on the site of the Navy Yard. Pensacola NAS began training pilots for World War I and would subsequently play a major role in training pilots for World War II. Other military bases were established in preparation for World War II, including Eglin Field (Eglin Air Force Base) on Choctawhatchee Bay which served as an armament proving ground during WWII and is associated with significant instances and personages such as Jimmy Doolittle's squadron that trained at Eglin for their famous 1942 raid on Japan. Armament development continued as Eglin's primary mission throughout the Cold War and is still in operation today (Wharton et al. 2014:3-45).

Previous Cultural Resources Investigations

Cultural resource investigations were conducted in the project area as early as 1885 with Walker's research on shell middens in Pensacola and Choctawhatchee bays. This early work was expanded upon by Moore (1901, 1908) who also investigated burial mounds and by Willey (1949) who considered site densities and established baseline sequences and temporal affiliations for archaeological sites that are still in use. Another notable investigation relevant to the current study area includes an examination of navigation improvement impacts for the USACE Old Pass Lagoon Project in Okaloosa (Robinson 1982). During this investigation, Robinson noted that due to the dynamic nature of the coastline in the study area, which overlaps the present APE, and because Okaloosa and Franklin Counties had been subjected to several nourishment programs the likelihood of encountering intact archaeological resources was low. Notable historic building surveys that also overlapped portions of the APE were also conducted in the early 1990s. These include the Historic Building Survey of Okaloosa County (Bennett and Olausen 1991) that surveyed within the city limits of Destin and the unincorporated area Okaloosa County and the Historic Properties Survey of Destin, Florida (Bennett 1992) that surveyed historic properties within the city limits of Destin. The goal of these were to identify properties potentially eligible to the National Register of Historic Places.

Various cultural resource management investigations supporting development and Eglin Airforce Base and research projects conducted by the University of West Florida have also been conducted near the present study area. These have contributed significantly to the understanding of the archaeology the Choctawhatchee Bay area and have recorded a wide range of site types including mounds, village sites, camps, pre-Contact artifacts scatters, and historic artifact scatters (Lydecker 2008, Wharton et al. 2014).

Within the proposed APE, archaeological surveys of both the Okaloosa Island and West Destin shoreline portions of the APE were conducted in support of the Deepwater Horizon Oil Spill Response in the State of Florida between June 2010 and June 2013. This survey covered more than 526 kilometers of shoreline in seven counties of the Florida Panhandle including the Okaloosa Island and West Destin portions of the APE. The focus of the 2010 2013 survey was the intertidal beach and upper beach and berm zones of the coastline which are dynamic environmental zones that are constantly reshaped and stirred by waves, tides, and storms. The large oil spill response archaeological survey resulted in the assessment of 20 new historic resource sites and 157 previously recorded sites. Only seven of these sites are located along the shoreline within Okaloosa County, however, all are located in undeveloped areas outside of the Okaloosa Island portion of the APE.

Marine archaeological projects including remote sensing and diver investigations to support dredging and offshore borrow areas for beach renourishment projects have become more common. Three have been completed within or near the offshore portions of the present APE. Tuttle (2003) from Panamerican Consultants, Inc. conducted a remote sensing and diver investigation of a proposed borrow area 9,000 feet long and 3,000 feet wide off of East Pass directly offshore form West Destin and Santa Rosa Island. Nine anomaly clusters were identified during remote sensing but were found to be modern rubbish during the subsequent diver investigation.

Borrow areas OK-A and OK-B were also subjected to remote sensing, diver evaluation, and monitoring investigations in 2007 (Wharton et al. 2008, Lydecker 2008). Monitoring of offshore coring activities for the borrow areas recovered wood fragments thought to be cultural, however, these were not found within the proposed OK-A and OK-B borrow areas. Remote sensing work identified 135 magnetic anomalies, 13 of which comprised four separate clusters interpreted as potential historic properties. These anomaly clusters were evaluated by divers and were found to not represent historic properties. A total of 13 side scan sonar targets were also identified and did not represent historic properties. Both the remote sensing and monitoring projects determined that no potentially significant submerged cultural resources were present within the proposed OK-A and OK-B borrow areas and did not recommend additional archaeological work.

Summary

The environment of Santa Rosa Island and the peninsula on which West Destin is situated was less than ideal for permanent pre-Contact Native American, colonial, and even early American settlement. Although these barrier island and peninsular features offered access to a rich in marine and estuarine resource base, these areas lacked freshwater, shelter, and other resources needed to support long-term occupation. Aside from being situated within the already limited environment conditions, the Santa Rosa and West Destin portions of the APE are further restricted to the intertidal beach and upper beach and berm zones of the Gulf coastline. These zones are largely devoid of vegetation, are constantly reshaped and eroded by waves and tides and are particularly exposed to the effects of powerful hurricanes that can shift massive amounts of sand. These factors would have limited pre-Contact and historic period use of the coastline portion of the APE to short-term activities related to the exploitation of marine and

estuarine resources. Archaeological evidence of these activities typically includes small camp of village sites, which would be particularly susceptible to shoreline erosion. Generally, archaeological research in the area has shown that pre-Contact and historic settlement was focused on the river drainages that flow into Choctawhatchee Bay (Lydecker 2008:4—5). Also, previous archaeological investigations did not identify any cultural resources or historic properties within the APE. These factors, along with modern development and previous renourishment projects suggest there is a low probability for the presence archaeological sites within coastal areas of the Gulf including the APE.

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City of Fort Walton Beach

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Robert T. Mearns
City Manager
rmearns@fwb.org

December 21, 2010

Mr. Alex Webster, Brownfields Coordinator
Florida Department of Environmental Protection
160 Governmental Center Suite 308
Pensacola, Florida 32502-5794

RE: City of Fort Walton Beach Brownfield Area Designation Notification

Dear Mr. Webster:

In accordance with Section 376.80(1), Florida Statutes, the City of Fort Walton Beach is notifying the Department of Environmental Protection of its decision to designate a second Brownfields area in the City in the Hollywood Boulevard Light Industrial district for the purpose of environmental site rehabilitation and economic redevelopment.

An executed copy of Resolution 21010-42 approving the designation on December 14, 2010 is attached. The boundary map, attached as "Exhibit A" and the legal description, attached as "Exhibit B", are included with this letter.

Please feel free to contact my office if you have any questions or require additional information.

Sincerely,

Robert T. Mearns
City Manager

READING	DATE
1st	11-23-10
2nd	12/14/10

RESOLUTION 2010-42

A RESOLUTION OF THE CITY OF FORT WALTON BEACH, FLORIDA, DESIGNATING A BROWNFIELD AREA IN THE CITY FOR PROPERTIES GENERALLY LOCATED IN THE WHOLESALE AND LIGHT INDUSTRIAL ZONING DISTRICT AS DEPICTED IN EXHIBIT A AND DESCRIBED IN EXHIBIT B, CONSISTING OF APPROXIMATELY 236 ACRES, FOR PURPOSES OF ENVIRONMENTAL SITE REHABILITATION AND ECONOMIC REDEVELOPMENT.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF FORT WALTON BEACH, FLORIDA AS FOLLOWS:

Section 1. The City Council of the City of Fort Walton Beach, Florida hereby designates the property generally located within City's M-1 Wholesale and Light Industrial zoning district, but also some properties adjacent lying within the C-2 General Commercial zoning district, as depicted in the attached map (Exhibit A) and described more particularly in the attached legal description (Exhibit B), as a Brownfield area according to Sections 377.76 – 377.85, Florida Statutes. Such designation shall not render the City of Fort Walton Beach liable for the cost of any site rehabilitation or source removal, as defined in Section 376.79, Florida Statutes.

Section 2. The City of Fort Walton Beach has conducted the necessary public meetings and hearings for designating a Brownfield area. The City of Fort Walton Beach has considered:

i. Whether the Brownfield Area warrants economic development and has a reasonable potential for such activities;

ii. Whether the proposed area to be designated represents a reasonably focused approach and is not overly large in geographic coverage;

iii. Whether the area has potential to interest the private sector in participating in rehabilitation;

iv. Whether the area contains sites or parts of sites suitable for limited recreational open space, cultural or historical preservation purposes.

Section 3. The City Manager is hereby authorized to do all things necessary and proper to make effective the provisions of this Resolution. This Resolution shall take effect immediately upon approval by the City Council.

Adopted: December 14, 2010

Mike Anderson, Mayor

Attest:

Helen Spencer, City Clerk

Approved for legal sufficiency:

Hayward Dykes Jr., City Attorney

DISPOSITION
M Beedie
E. Jones

Exhibit A – Boundary Map

City of Fort Walton Beach

Hollywood Boulevard
Brownfields Area

City of Fort Walton Beach
Engineering Department
Planning Division

Legend

- Hollywood Blvd. Brownfields Area
- Water Bodies
- City Limits

City Limits

0 0.1 0.2 0.3

Miles

N W E S

Prepared by the
City of Fort Walton Beach
Engineering Department
November 10, 2010

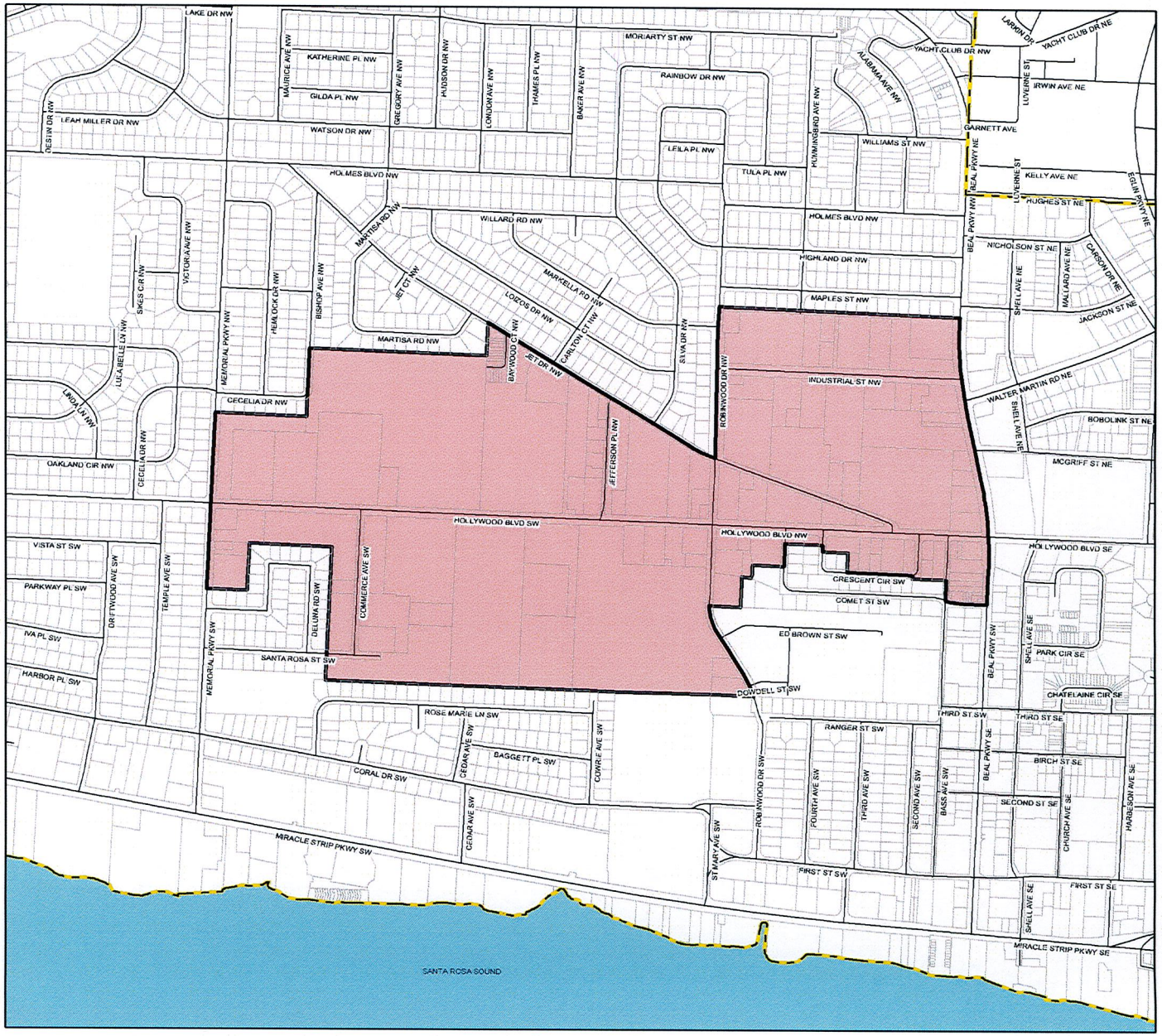


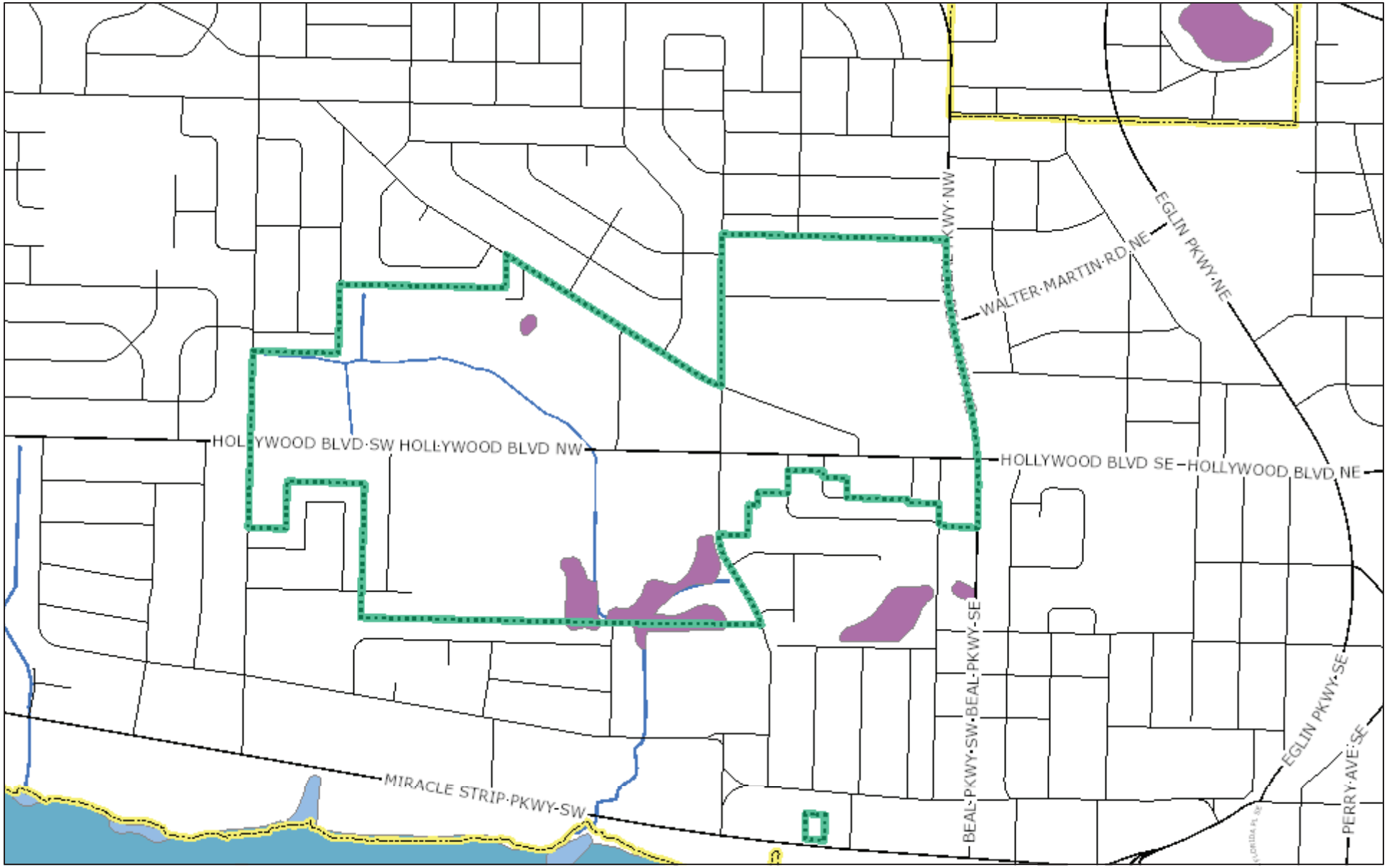
EXHIBIT B – LEGAL DESCRIPTION

Legal Description of the Boundary of the Hollywood Boulevard Brownfields Area

Begin at the Northwest corner of Lot 23, Block C, Santa Rosa Park Subdivision, as recorded in Plat Book 3 at Page 79 of the Public Records of Okaloosa County, Florida; thence proceed Westerly 40 feet, more or less, to the centerline of Memorial Parkway; thence Northerly along the centerline of Memorial Parkway to a point 40 feet, more or less, Westerly of the Southwest corner of Lot 1, Block E, 1st Addition to Municipal Subdivision, as recorded in Plat Book 3 at Page 38 of the Public Records of Okaloosa County, Florida; thence Easterly 40 feet, more or less, to the Southwest corner of said Lot 1; thence Easterly along the South line of Lot 1, 2, 3, 4, 5, 6, 7, and 8, Block E, 1st Addition to Municipal Subdivision to the Southeast corner of said Lot 8; thence Northerly along the East line of said Lot 8 to the Northeast corner of said Lot 8; thence continue Northerly to the point of tangency of the centerline of Bishop Avenue NW; thence Northerly along the centerline of Bishop Avenue NW to a point 30 feet, more or less, Westerly of the Southwest corner of Lot 36, Block F, 2nd Addition to Municipal Subdivision, as recorded in Plat Book 3 at Page 54 of the Public Records of Okaloosa County, Florida; thence Easterly 30 feet, more or less, to the Southwest corner of said Lot 36; thence Easterly along the South line of the 2nd Addition to Municipal Subdivision to the Southeast corner of Lot 2, Block F, 2nd Addition to Municipal Subdivision; thence Northerly along the East line of the 2nd Addition to Municipal Subdivision to the Northeasterly corner of Lot 1, Block F, 2nd Addition to Municipal Subdivision; thence continue Northerly to the centerline of Jet Drive NW; thence Southeasterly along the centerline of Jet Drive NW to the centerline point of intersection of Jet Drive NW and Robinwood Drive NW; thence Northerly along the centerline of Robinwood Drive NW to a point 30 feet, more or less, Westerly of the Southwest corner of Lot 1, Block J, Second Addition to Bel Air Subdivision, as recorded in Plat Book 2 at Page 74 of the Public Records of Okaloosa County, Florida; thence Easterly 30 feet, more or less, to the Southwest corner of said Lot 1; thence Easterly along the South line of the Second Addition to Bel Air Subdivision to the Southeast corner of Lot 14, Block K, Second Addition to Bel Air Subdivision; thence continue Easterly to the centerline of Beal Parkway; thence Southerly along the center line of Beal Parkway to the centerline point of intersection of Beal Parkway and Comet Street SW; thence Westerly along the centerline of Comet Street SW to the centerline point of intersection of Comet Street SW and Bass Avenue SW; thence Northerly along the centerline of Bass Avenue SW to a point 20 feet, more or less, Easterly of the Northeast corner of Lot 23, Block 2, Kelly's Subdivision, as recorded in Plat Book 2 at Page 35 of the Public Records of Okaloosa County, Florida; thence Westerly 20 feet, more or less, to the Northeast corner of said Lot 23; thence Westerly along the North line of Lots 23, 22, 21 to the Northwest corner of Lot 21, Block 2, Kelly's Subdivision; thence Northerly to the centerline of Crescent Circle SW; thence Westerly along the centerline of Crescent Circle SW to a point 25 feet, more or less, Southerly of the Southeast corner of Lot 10, Block 1, Kelly's Subdivision; thence Northerly 20 feet, more or less, to the Southeast corner of said Lot 10; thence Northerly along the East line of said Lot 10 to the Northeast corner of said Lot 10; thence Westerly along the North line of Lot 10 and 9, Block 1, Kelly's Subdivision to the

Northwest corner of said Lot 9; thence continue Westerly 25 feet, more or less, to the centerline of Crescent Circle SW; thence Northerly along the centerline of Crescent Circle SW to a point 25 feet, more or less, Easterly of the Northeast corner of Lot 6, Block 2, Kelly's Subdivision; thence Westerly 25 feet, more or less, to the Northeast corner of said Lot 6; thence continue Westerly along the North line of Lot 6 and 2, Block 2, Kelly's Subdivision to the Northwest corner of said Lot 2; thence continue Westerly 25 feet, more or less, to the centerline of Carey Avenue SW; thence Southerly along the centerline of Carey Avenue SW 175 feet, more or less, to a point 25 feet, more or less, Easterly of the Southeast corner of metes and bounds parcel 14-2S-24-0000-0017-0000 as per the 2010 Okaloosa County Tax Rolls (this parcel also known as Florida Pest Control, 34 Hollywood Boulevard SW); thence Westerly 25 feet, more or less, to the Southeast corner of said metes and bounds parcel; thence Westerly along the South line of said metes and bounds parcel to the Southwest corner of said metes and bounds parcel; thence Southerly along the East line of Lot 1, Block B, First Addition to Kelly's Subdivision, as recorded in Plat Book 3 at Page 76 of the Public Records of Okaloosa County, Florida, to the Southeast corner of said Lot 1; thence continue Southerly 25 feet, more or less, to the centerline of the vacated Kelly Street right-of-way; thence Westerly along the centerline of the vacated Kelly Street right-of-way to a point 25 feet, more or less, Northerly of the Northeast corner of Lot 3, Block A, First Addition to Kelly's Subdivision; thence Southerly 25 feet, more or less, to the Northeast corner of said Lot 3; thence Southerly along the East line of said Lot 3 to the Southeast corner of said Lot 3; thence Westerly along the South line of said Lot 3 to the Southwest corner of said Lot 3; thence continue Westerly 30 feet, more or less, to the centerline of Robinwood Drive SW; thence Southeasterly along the centerline of Robinwood Drive SW to a point 30 feet, more or less, Easterly of the Southeast corner of the Robinwood Municipal Subdivision, as recorded in Plat Book 20 at Page 42 of the Public Records of Okaloosa County, Florida; thence Westerly 30 feet, more or less, to the Southeast corner of the Robinwood Municipal Subdivision; thence continue Westerly along the South line of the Robinwood Municipal Subdivision to the Southwest corner of the Robinwood Municipal Subdivision; thence continue Westerly along the North line of the Seabreeze Six Addition Subdivision, as recorded in Plat Book 3 at Page 53 of the Public Records of Okaloosa County, Florida to the Northwest corner of the Seabreeze Six Addition Subdivision; thence continue Westerly along the North line of 5th Addition to Sea Breeze Subdivision, as recorded in Plat Book 3 at Page 11 of the Public Records of Okaloosa County, Florida, to the Southeast corner of the Santa Rosa Park Subdivision, as recorded in Plat Book 3 at Page 79 of the Public Records of Okaloosa County, Florida; thence Northerly along the East line of the Santa Rosa Park Subdivision to the Northeast corner of the Santa Rosa Park Subdivision; thence Westerly along the North line of the Santa Rosa Park Subdivision to the Northwest corner of Lot 15, Block C, Santa Rosa Park Subdivision; thence Southerly along the West line of Lots 15, 16, 17, 18, and 19, Block C, Santa Rosa Park Subdivision to the Northeast corner of Lot 21, Block C, Santa Rosa Park Subdivision; thence Westerly along the North line of Lots 21, 22 and 23, Block C, Santa Rosa Park Subdivision to the Northwest Corner of Lot 23, Block C, Santa Rosa Park Subdivision, and the Point of Beginning.

Hollywood Brownfield Area



April 25, 2019

Miles
0.2 0.1 0 0.2 0.4 0.6

Legend

- City Addresses
- County Addresses
- Brownfield Areas

Road Names
- Minor Roads
- Major Roads

Roads
- Minor Roads
- Major Roads

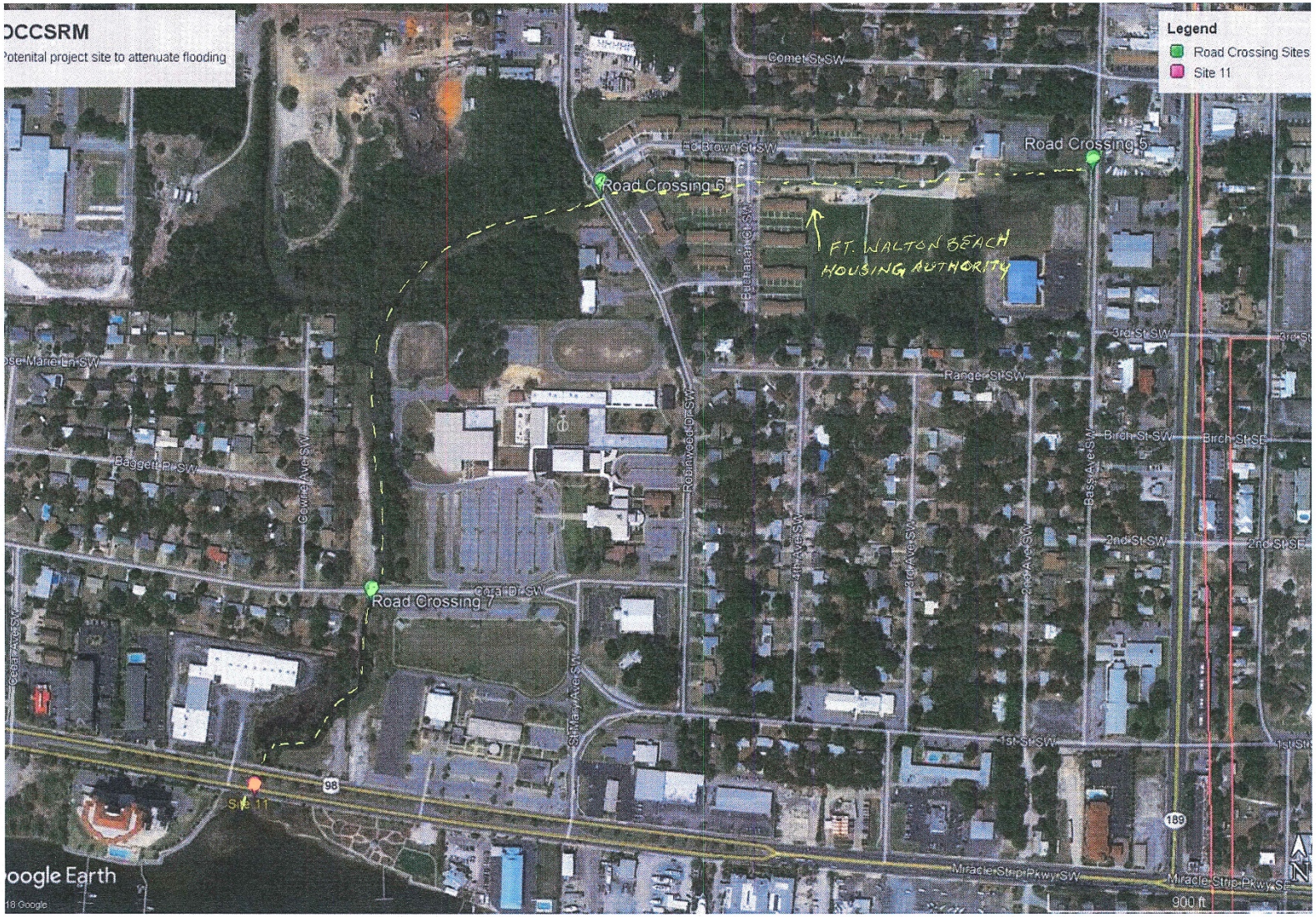
- City Limits

Jan2018Wetlands
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

- Building Footprints

Fort Walton Beach Housing Authority

SITE 11B/5-7V



Okaloosa County Coastal Storm Risk Management

Assessment of Natural Features

in Choctawhatchee Back Bay Shoreline

Okaloosa County

I. Introduction

The screened areas within the Okaloosa County Coastal Storm Risk Management study (OCCSRM) study encompassed the immediate shoreline along the inner watered areas of Choctawhatchee Bay, Okaloosa County, referred to as the back bay in this study.

Natural areas were identified that could address flood attenuation to back bay locations affected by storm surge and potential sea level rise. Sites were viewed as potential candidates for natural and nature based feature (NNBF) management measures that could be implemented to reduce stress to these systems and provide benefits throughout the back bay study area. Candidate sites were identified in the Santa Rosa Sound and Choctawhatchee Bay along with its inlets, bayous, and confluences of tributary streams, Figures 1 -3. The natural features consist of a diversity of plant community habitats that range from upland mixed pine and hardwood forests to riparian hardwood or shrub dominated wetlands along streams, along with brackish estuarine herbaceous marshes at the confluence with open water bayous (FNAI, 2010). Limited beach habitat occurs along the interface with the Santa Rosa Sound. Some freshwater streams are perennial waterways while others are manipulated channels with outfall either directly into the Santa Rosa Sound or indirectly to estuaries in Choctawhatchee Bay.

II. Initial Desktop Process

Areas in the back bay that were immediately eliminated from further analysis, based on aerial photograph interpretation (Google Earth, 2017 – 2018 flyover), consisted of developed shoreline and immediate landward property use. Development typically included armored shoreline (seawalls, rip-rap, or other structures), residential housing, commercial or recreational structures, and paved parking and other amenities. The exercise focused on natural or minimally developed conservation land use, such as a trail or boardwalk. Twenty-four (24) candidate sites within the back bay were identified to meet the criteria for further assessment.

All candidate sites are scattered throughout the back bay and vary in size from a few hundred linear feet to several acres of shoreline and lands immediately inland from the watered edge. Along Santa Rosa Sound, the undeveloped shoreline consists of narrow sand beach grading inland into herbaceous saltmarsh or tree-lined mixed hardwood swamp (FNAI, 2010). Tributary drainages from inland sources (either freshwater wetlands or manmade/manipulated streams) outfall directly into the sound. Typically these stream

confluences have vegetation-lined banks and riparian buffer immediately adjacent to residential or commercial development.

III. Criteria for Desktop Process

During the initial desktop screening method, candidate sites were chosen by interpretation of recent aerial photography (Google Earth, 2017 – 2018 flyover) with consideration of three study objectives for the OCCSRM study:

1. Reduce the potential for damages caused by coastal storm waves, flooding and erosion to residential and commercial development and critical infrastructure (i.e. roads, emergency facilities, etc.) for the 50-year period of analysis
2. Promote resiliency of the shoreline and back-bay areas of Okaloosa County, Florida
3. Maintain recreational opportunities along the study area

The 24 candidate sites were compared to the study objectives to evaluate whether the function of the system is at risk of impairment. Emphasis was focused on the flooding and wave attenuation capability of the system, whether the system showed significant damage from past or recent storm events, and whether resiliency could be restored with project. Examples of damage include eroded beach, fallen or dead standing trees and coarse woody debris obstructing water movement in streambeds, or sediment build up within marshes or at stream confluences with bayous that could inhibit drainage from a storm surge-related flooding event. This process did not include quantitative habitat assessment to calculate benefit units that is typically applied to National Ecological Restoration (NER).

During the initial stage of desktop review, 10 candidate sites were eliminated from further consideration. Evaluation concluded no significant tropical storm-induced damage or other disturbance had occurred recently that could impair the objective function of the system. Other items, such as the presence of invasive exotic species or sediment-blocked drainage, were not identifiable from the aerial due to its scale. Some of the sites were inconclusive to determine the level of function of land use. For those sites, further evaluation by onsite field survey was required.

IV. Field Data Collection

The onsite field visitation occurred on 12 and 13 March 2019 and was conducted by USACE staff including a Hydrologist Engineer, a Biologist, and a Cultural Resource Specialist (Archaeologist). The survey covered two field days; the first day was from the water edge by boat (USACE Carolina skiff 21-ft), and the second day the sites were accessed by roadway via USACE vehicle. The weather for the first day was warm (mid 70's degree Fahrenheit) dry, and sunny with a mild wind building throughout the day as a storm approached from the southwest. The second day was overcast, cooler (mid 50's degree Fahrenheit), and windy (average 20 mph with gusts), with scattered rain as the day progressed. Ground-truthed data collected at the sites included datasheet documentation of those with potential project, field log book notes, photographs, and aerial review.

The first group of onsite visits included those that were deemed inconclusive during the desktop screening exercise. These four sites were accessed by boat only to determine if any existing condition that was not obvious during the aerial evaluation warranted a change in status from eliminated to potential project. None of these four sites had datasheet collection completed; however, field logbook notes and photographs were taken to document their current condition. Onsite observations concluded that no recent or residual storm damage was present at locations along the predominantly beach shoreline. Undeveloped shoreline along the Santa Rosa Sound are mostly managed by Eglin AFB, and appeared to be in a stable, undisturbed manner. Two sites located at stream confluences with bayou fingers within Choctawhatchee Bay were both determined to be functioning systems able to attenuate flooding from storm surge or wave action. The last site was shoreline in Garnier Bayou that is managed by Eglin AFB. The undisturbed, mostly upland forest is dominated by slash and longleaf pine. An active bald eagle nest was observed at time of the visit. This system is fully functional. All these sites retained elimination status.

The remaining 10 candidate sites were viewed both by boat from the water and vehicle from road crossings. Of these, 7 sites were eliminated from further review as no significant storm damage was present that could impair the function of the natural system. Lands are well managed by local residential homeowner groups, government units, or Eglin AFB. No datasheets were completed for these although photos and field logbook data were collected while at the sites.

V. Findings of Potential Sites

Three sites were considered to have potential for NNBF project work. Data collection at these sites included datasheet completion, photo and logbook data.

1. A drainage outlet into Santa Rosa Sound is located in a residential neighborhood and has a multiple culvert crossing on Parish Road (Site 6B 8V). The outlet is for an inland freshwater wetland that accepts untreated storm water runoff from the adjacent residential neighborhood. The 5 corrugated metal 36-inch pipes under the road bisecting the wetland are constricted and do not provide adequate conveyance of storm water runoff or tidal flushing. The shrub-dominated swamp is vulnerable to flooding as indicated by stressed or dead trees and shrubs, along with former erosion events that have been repaired with riprap. An obvious wrackline is on the south side of the wetland system and acts as a dam to retain drainage. The narrow, bottle-necked outlet into Santa Rosa Sound is undersized to adequately drain storm or surge water from the system and is riprapped to control erosion. The area is small (less than 5 acres in estimated size), and would only provide flood relief to residential properties immediately adjacent to the wetland. Because few benefits could be derived from wetland enhancement of this site, inclusion of this measure as a back bay alternative is not justified.

2. A drainage within an urbanized high density area is located in Fort Walton Beach (Site 11B 5-7V) and has been manipulated by residential, commercial, and light

industrial development. The drainage occurs in a FEMA-designated floodplain (AE 8-ft flood base elevation, FIRM 12091C0461H, 2002). It starts upstream of the Fort Walton Beach Housing Authority which consists of multiple family structures built in the mid 1970's on a filled wetland. The stream is diverted through two pipes beneath the housing authority development and re-surfaces at the Bass Ave road crossing. From there, it becomes an exposed manipulated channel with box cell culverts at two more road crossings. The entire system is stressed with poor water quality indicated by high turbidity, trash, and riprapped banks to address erosion. The riparian is a partially filled and disturbed freshwater hardwood forest/shrub wetland system encroached with invasive species and trash from a homeless campsite. Exposed underground utilities corridors in the riparian cross the drainage. Downstream culverts are obstructed with debris and vegetative mats that impede conveyance of storm water and tidal flushing. The concrete 2-cell box culvert crossing US Hwy 98 at the outfall into Santa Rosa Sound is almost totally submerged and mostly nonfunctional.

Further investigation of land use in the vicinity of the drainage discovered that a designated brownfield (City of Fort Walton Beach, 21 December 2010) is immediately adjacent to the Fort Walton Beach Housing Authority. A portion of the drainage channel and riparian are within the designated boundary from Bass Avenue to the St. Mary's School. The complexity of the site by development on a filled wetland within a FEMA designated floodplain compounded with the brownfield designation eliminates any project work associated with the upper portion of the stream system, as it would be outside the scope of the OCCSRM study's authorization. However, the culverted outfall of the system at the US Hwy 98 crossing into the Santa Rosa Sound is eliminated from this study as a potential project.

Further analysis of this site was conducted with viewpoint from environment, plan formulation, and economic disciplines. Plan formulation analysis determined the Base Flood Elevation (BFE) in this area to be 8 feet and that the structures in this area were built on fill. The initial assessment determined that these structures were built at or slightly above the BFE and likely only subject to floods greater than the 100-year event. Measures to reduce flood risk in this area could include improving flow capacity of the drainage channel through a NNBF measure. Flow capacity improvement by removing debris or overgrown vegetation would be a cost effective means of reducing flood risk from frequent rainfall events (2-year, 5-year) but would not have much effect on the low frequency rainfall events (100-year and above). With the risk of flooding being low, justification for an economic measure is low from a NED standpoint. Based on these considerations, flow capacity improvement is not likely to reduce flood risk. Measures to reduce storm damage risk for this site were screened from further analysis based on the assessment findings including lack of effectiveness, potential adverse environmental impacts, and low economic justification. It is recommended that if further detailed analysis of this area is desired,

an investigation under Section 205 of the Continuing Authorities Program could be considered.

3. The confluence of Swift Creek into Rocky Bayou (Site 22B V3) was the last site visited. The freshwater stream starts several miles upstream within the Elgin AFB and is identified by the USFWS as critical habitat for the federally endangered Okaloosa darter. At the confluence, the stream becomes braided with multiple channels with the fringing riparian wetland consisting of mixed pine and freshwater hardwood forest that grades into a brackish shrub and herbaceous marsh as it extends into Rocky Bayou. The plant community is composed of mostly native species; no obvious exotic invasive species were observed from either the watered edge or the road crossing. Within the upstream forested hardwood swamp, trees and shrubs appear mostly healthy, although some scattered dead standing hardwood trees are present. From the watered edge, dead standing and leaning trees were observed along with coarse woody debris and sediment build up at the stream confluence that retards adequate conveyance of storm water following flooding events. Although the system along the bayou is relatively small and retains its ability to attenuate flooding from storm surge or high wave action, function is impaired due to limited capacity and impeded drainage. A small scale project of clearing large woody debris obstruction from the channel would improve the function of this system for flood attenuation. However, the location of this stream adjacent to undeveloped lands which would limit the beneficial affect of this measure to only the area immediately adjacent to Swift Creek and was screened because it was not considered to be cost effective.

Below are summaries of the sites included in the screening evaluation and conclusions for all sites.

Site #	Site Description	Comment	FLCCS[1]
Initial sites screened and eliminated by desktop aerial evaluation			
2 & 3	Sandy Point Homeowners Association beach and saltmarsh wetland undeveloped system	Large area not disturbed by storm damage, is a functioning system that can attenuate waves and storm surge. Saltmarsh and narrow beach	6420 1810
4	Drainage outlet into Santa Rosa Sound	Disturbed slough in residential development, fragmented and disturbed. Insignificant benefit and no recent storm damage hindering function.	1210
5	Eglin AFB recreational use forested shoreline	Small area; no need for project. No storm damage. Dry prairie and	3100 4340
8	Undeveloped shoreline mixed upland forest and small beach on Santa Rosa Sound	Insignificant benefit and no recent storm damage hindering function.	630 190
12	Lake Earl and drainage	Extensively developed lake shoreline with outlet into Choctawhatchee Bay. No recent storm damage hindering function; no need for project.	541 1220
16	Poqhito Bayou	Residential adjacent land use partially developed shoreline. Maintained system by Eglin AFB.	541, 1110 630 , 410
17	Ben's Lake, Eglin AFB	Residential adjacent land use partially developed shoreline. Maintained system by Eglin AFB.	541, 720 1210, 434, 410, 208, 641, 818
21	Sunset Cove/Shirk Bayou/Sunken Boat Bayou	Insignificant benefit and no recent storm damage hindering function. Nearby living shoreline projects.	1110, 410 541, 434
23	Rock Creek confluence with Rocky Bayou, associated with Road Crossing 2.	Florida OFW, State Park and limited development along shoreline. No need for project. No storm damage.	510, 642, 641, 410,
24	Pippin Lake Eglin AFB	Residential adjacent land use partially developed shoreline. Maintained system by Eglin AFB.	520, 642 411, 625, 643 646, 1210, 615

[1] FLCCS = Florida Land Classification Code System (FNAI, 1990)

Site #	Site Description	Determination	Comment	FLCCS[1]
Full Visit by Boat				
1	Emerald Point outlet into Santa Rosa Sound	Eliminated	No need for project. No storm damage. Saltmarsh and narrow beach	6240 1810
5	Eglin AFB shoreline	Eliminated	No need for project. No storm damage	190
6	Drainage outlet into Santa Rosa Sound	Potential project	Outlet for inland wetland is constricted and does not provide adequate drainage or tidal flushing. Inland wetland is bisected by road crossing of 5 culverts that are impaired to convey stormwater from upstream sources. System is vulnerable to flooding. Impact includes stressed or dead trees, riprap indicates previous erosion events. Limited tidal flushing at outlet by constricted flow and sand barrier. Insignificant benefit due to small size, no available lands to expand constricted drainage to Santa Rosa Sound.	6460 5100
7	Marsh Harbor Owners Assoc and Cobia Bay South Homeowners Assoc	Eliminated	No need for project. No storm damage	642 710
9	BCC Okaloosa Co. dredged waterway access for residential use	Eliminated	No need for project. No storm damage. Waterway maintained by local residents and/or County.	510 1310
10	Eglin AFB/Hurlbert Field. Undeveloped upland mixed forest with small drainage; adjacent disturbed lands for military and recreation	Eliminated	No need for project. No storm damage. Lands are maintained by US Air Force.	630 190
11	Ft Walton Beach Housing Authority and Hwy 98 Drainage outfall	Potential project now eliminated	Drainage manipulated by urban development. FWB Housing Authority on filled wetland, re-channelized drainage. Culverts and exposed stream channel with obstruction before and at Hwy 98 crossing and outfall into Santa Rosa Sound. Project needed to adequately address issue is not within the scope of this study.	630 510 1330
18	Toms Creek Confluence with Toms Bayou/ Eglin AFB	Eliminated	No need for project. No storm damage. Confluence of stream into bayou. Adjacent lands maintained by Eglin AFB.	410 190
20	Head of Boggy Bayou/ Turkey Creek	Eliminated	Site has sediment loading from offsite source; runoff from poorly managed stockpiled material at construction site that is not storm-related damage. Turkey Creek is a well managed spring run from upstream source, with pristine forested wetland and sheetflow. It is a large system that has full ability to function during extreme storm events. No indication of storm damage.	615 642 651
22	Swift Creek confluence with Rocky Bayou	Potential project now eliminated	Storm damage indication at confluence with bayou. Dead and stressed trees, downed woody debris and sediment obstruction impairing conveyence function for potential flood attenuation from storm surge and waves. Insignificant benefit due to small size, no adjacent projects to associate.	615 642 651

Visit by vehicle - Road Crossings				
1	White Point Road Crossing		Culvert crossing from residential stormwater system leading to bay bayou.	
2	Rocky Bayou State Park restoration project; assoc. w/ Site 23		Shoreline from within the park at restoration area that enhances surface water quality released into the bayou.	
3	John Sims Pkwy crossing Swift Creek; assoc. w/ Site 22		Mixed hardwood riparian wetland along creek that does not have storm damage as seen at the confluence with bayou.	
4	John Sims Pkwy crossing Boggy Bayou drainage; assoc w/ Site 20		Shrub and mixed hardwood/pine wetland riparian to Turkey Creek; sediment loading is not storm damage related.	
5	Bass Ave SW crossing east of developed floodplain; assoc. w/ Site 11		Culvert crossing from residential stormwater system leading to culverted drainage beneath housing development	
6	Robinwood Dr SW west of developed floodplain crossing drainage; assoc. with Site 11		Drainage reemergence from culverted section beneath housing development, now a channelized ditch in wetland	
7	Coral Drive SW crossing drainage upstream from Site 11		Culvert crossing of channelized drainage within disturbed wetland riparian leading to Santa Rosa Sound	
8	Parish Blvd crossing unnamed slough; assoc. w/ Site 6		5-culvert crossing of mixed pine/hardwood and shrub wetland with constricted drainage to Santa Rosa Sound	

[1] FLCCS = Florida Land Classification Code System (FNAI, 1990)

Figure 1. Western portion of study area along Santa Rosa Sound

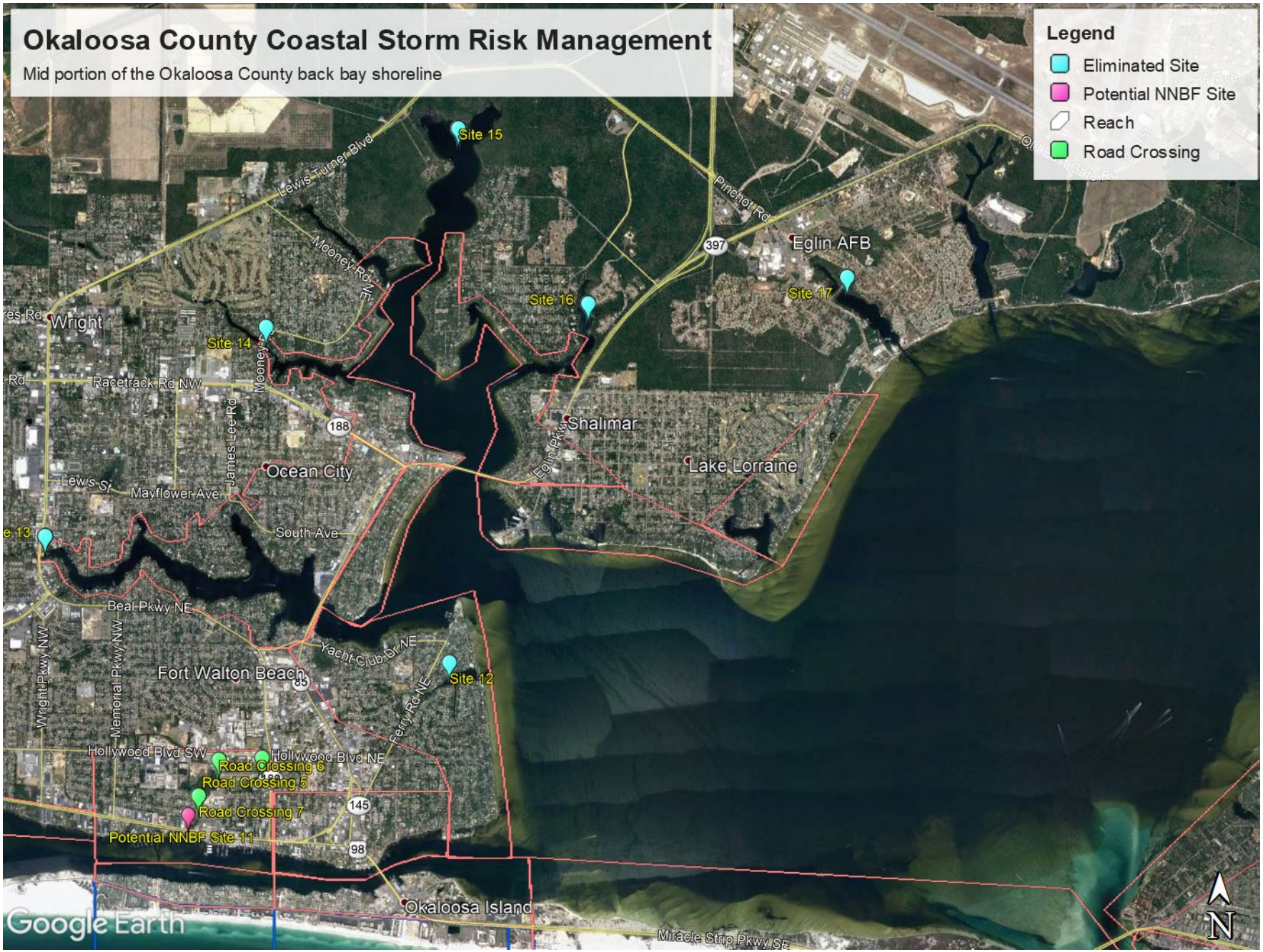


Figure 2. Mid section of study area back bay shoreline within Choctawhatchee Bay

Figure 3. East section of study area back bay shoreline within Choctawhatchee Bay

US ACE Mobile District NER Screening Data Collection - Florida

Project Name: Okaloosa County CSRM | Date: 3/12/2019 | Data Collector(s): KKM/RA/PO'D

Location T/R/S: _____ | Lat/Long: 30.5111/-86.4531 | State/County: FL Okaloosa | Site ID#: 22B/3V

FLCCS Code(s): 615/642/651 | NWI Code(s): PFO1/4C, PFO1R, EU1BL | FNAI: _____

Brief Description of Plant Community: Freshwater forested/shrub swamp tidal influenced confluence with estuarine/marine open water

Indication of Disturbance: X Y ____ N | Indicator: Dead standing/leaning trees in wetland, coarse woody debris in stream | Current /X Former

Type: Development X Flooding Fire Logging Agriculture Other: Storm damage

Vegetation Scientific[1] / Common Name	Percent Cover	Stratum T/S/H/G[2]	Indicator Status	Native Species Y / N	FLEPPC[3] Category
Pinus taeda	10	T/S		Y	
Acer Rubrum	5	T/S		Y	
Fraxinus sp	5	T/S		Y	
Salix sp	10	S		Y	
Baccharis halimifolia	10	S		Y	
Unidentified grasses	30	H			
Carex sp	10	H		Y	
Nyssa sylvatica	5	T/S		Y	
Taxodeum distichum	5	T		Y	
Juncus sp	<5	H		Y	

[1] Scientific name is preferred; common name is acceptable

[2] T = Tree, S = Shrub, H = Herbaceous, G = Groundcover

[3] Florida Exotic Pest Plant Council List (Category 1 or 2)

General Description or Comments: POTENTIAL PROJECT. Swift Creek confluence with Rocky Bayou mixed hardwoods/shrub swamp, tidally influenced. Abundance of dead trees - standing and some fallen or leaning. Braided stream channel with woody debris obstruction viewed from water. From road crossing, mixed hardwood swamp with tannin/light turbidity surface water. Trees and shrubs appear mostly healthy but some are stressed; less density of dead standing trees further inland. North of road crossing, freshwater hardwood swamp with recreational boardwalk, stream has sand/gravel substrate. Adjacent commercial land use. Stream is designated critical habitat for Okaloosa darter, ESA endangered species.

Project Name OCCSRM **NER ID#** 22B/3V

Soils/Substrate Hydric X Y ____N NRCS Code / Name _____

Depth (inches)	Horizon	Texture	Muncell Matirx	Color Redox	% Redox	Comments
		Inundated, mucky substrate				

Soils disturbed ___ Y ___ N Recent / Not Recent Probable cause is storm related ___ Y ___ N

Indicators: Erosion Sediment Deposition Agriculture Fire Fill Excavation Mixed Horizons

Observations match NCRS mapped description ____ Y ____ N

Hydrology Associated with streams, estuarine environments. Named waterbody Swift Creek

General health of system ____ High X Moderate ____ Low Flooded ____ Y X N

Natural channel X Y ____ N Flow/Tidal flushing ____ Normal X Obstructed

Obstructions: Sediment Woody debris Herbaceous mats Trash/Litter Algal mats Berm

Water Quality Indicator: Turbidity ____ High ____ Moderate X Low X Clear/stained

Vegetated shoreline: Emergent herbaceous species Overhanging trees/shrubs Stabilized banks SAV

Connectivity to upstream systems X Y ____ N Fringing wetlands X Y ____ N

Wildlife Observations

Habitat General Condition: ___ Pristine X Moderate ___ Poor Function: ___ High X Moderate ___ Low

Indicator of use: Nests Dens Burrows Tracks/Trails Scat Carcass Bones Fur Feathers Skin

Usage Obstruction: Fence Wall Culvert Utility corridor Poles/perches Fragmentation

Incidental Sighting, General Description: (species observed, gender, age, activities, count)

Red tailed haw incidental sighting; Cavities in dead standing snags; Stream is known to support Okaloosa Darter, mapped as critical habitat for Okaloosa darter in USFWS recovery plan.

Other Land Use Within system of assessment _____ Nearby/Adjacent X Distance away 0.5 mi

Recreation usage Boardwalk north of highway Agriculture usage _____

Development: Residential Commercial Institutional Industrial

Within waterbody: Armoring Docks/Boat slips Mooring Marina Channel Markers

US ACE Mobile District NER Screening Data Collection - Florida

Project Name: Okaloosa County CSRM | Date: 3/12/2019 | Data Collector(s): KKM/RA/PO'D

Location T/R/S: _____ | Lat/Long: 30.406/-86.759 | State/County: FL Okaloosa | Site ID#: 6B/8V

FLCCS Code(s): 510, 646 | NWI Code(s): PSS1Cd/PFO1/3Cd | FNAI: _____

Brief Description of Plant Community: Shrub dominated swamp with drainage to Rosa Sound

Indication of Disturbance: X Y ____ N | Indicator: Impoundment formation, erosion | Current / Former

Type: Development Flooding Fire Logging Agriculture Other: Residential

Vegetation Scientific[1] / Common Name	Percent Cover	Stratum T/S/H/G[2]	Indicator Status	Native Species Y / N	FLEPPC[3] Category
Carex sp	20	H		Y	
unknown grasses	15	H		Y	
Salix sp	15	S		Y	
Baccharis halimifolia	15	S		Y	
Myrica cerifera	10	S		Y	
Rumex sp	5	H		Y	
Pinus taeda	15	T		Y	
Acer rubrum	5	T/S		Y	
Pontederia cordata	5	H		Y	

[1] Scientific name is preferred; common name is acceptable

[2] T = Tree, S = Shrub, H = Herbaceous, G = Groundcover

[3] Florida Exotic Pest Plant Council List (Category 1 or 2)

General Description or Comments:

Potential Project. Drainage outlet from upstream wetland bisected by Parish Rd, paved with 5 CMP 36" culverts. Channel is riprapped with flowage into Santa Rosa Sound, with bottle-necked constriction at outfall. Road way is causing impoundment in wetland. The 5 culverts are spaced evenly through the crossing, but some are obstructed, non-functional with limited flood attenuation capacity. Wetland receives stormwater runoff from adjacent residential development. Flooding has stressed or killed some trees on the north side of the system, which has changed the wetland character from forested swamp to shrub swamp. An obvious wrackline is on the south side of the wetland that acts as a dam to hold back drainage. No tidal flushing.

Project Name OCCSRM **NER ID#** 6B/8V

Soils/Substrate Hydric X Y ____N NRCS Code / Name _____

Depth (inches)	Horizon	Texture	Muncell Matirx	Color Redox	% Redox	Comments
		Inundated muck				

Soils disturbed X Y ____N Recent / Not Recent Probable cause is storm related X Y ____ N

Indicators: Erosion Sediment Deposition Agriculture Fire Fill Excavation Mixed Horizons

Observations match NCRS mapped description ____Y ____N

Hydrology Associated with streams, estuarine environments. Named waterbody Outfall to Santa Rosa Sound

General health of system ____High X Moderate ____Low Flooded ____Y X N

Natural channel ____Y X N Flow/Tidal flushing ____Normal X Obstructed

Obstructions: Sediment Woody debris Herbaceous mats Trash/Litter Algal mats Berm

Water Quality Indicator: Turbidity ____High X Moderate ____Low ____Clear/stained

Vegetated shoreline: Emergent herbaceous species Overhanging trees/shrubs Stabilized banks SAV

Connectivity to upstream systems X Y ____N Fringing wetlands X Y ____N

Wildlife Observations

Habitat General Condition: ____Pristine X Moderate ____Poor Function: ____High ____Moderate X Low

Indicator of use: Nests Dens Burrows Tracks/Trails Scat Carcass Bones Fur Feathers Skin

Usage Obstruction: Fence Wall Culvert Utility corridor Poles/perches Fragmentation

Incidental Sighting, General Description: (species observed, gender, age, activities, count)

Fish (minnows), turtle. Obstructed culverts prohibit fish migration and flushing of water and tides. Road fragments system, acts as barrier and hazardous wildlife crossing. Riprap along roadat wetland edge, channel bank to outfall, and at culverts.

Other Land Use Within system of assessment _____ Nearby/Adjacent X Distance away _____

Recreation usage _____ Agriculture usage _____

Development: Residential Commercial Institutional Industrial

Within waterbody: Armoring Docks/Boat slips Mooring Marina Channel Markers

US ACE Mobile District Screening Data Collection - Florida

Project Name Okaloosa County CSRM Date 3/12/2019 Data Collector(s) KKM/RA

Location T/R/S _____ Lat/Long 30.405/-86.623 State/County FL Okaloosa Site ID# 11B/5, 6, 7 V

FLCCS Code(s) 630/510,1330 NWI Code(s) R5UBH/PFO1Cd/E2USN FNAI _____

Brief Description of Plant Community Manipulated drainage in filled wetland/floodplain

Indication of Disturbance X Y ____ N Indicator Filled wetland, channelized stream Current / Former

Type: Development Flooding Fire Logging Agriculture Other Commercial/Residential

Vegetation Scientific[1] / Common Name	Percent Cover	Stratum T/S/H/G[2]	Indicator Status	Native Species Y / N	FLEPPC[3] Category
Quercus nigra	15	T/S		Y	
Acer rubrum	10	T/S		Y	
Sapium sebiferum	5	T/S		N	1
Myrica cerifera	20	S		Y	
Ilex vomitoria	15	S		Y	
Baccharis halimifolia	15	S		Y	
Pinus taeda	10	T/S		Y	
Phragmites australis	5	H		N	1
Sesbania punicea	<5	H		N	2
Sabel minor	5	S		Y	
Sabel palmetto	5	T		Y	
Unknown grasses	10	H			

[1] Scientific name is preferred; common name is acceptable

[2] T = Tree, S = Shrub, H = Herbaceous, G = Groundcover

[3] Florida Exotic Pest Plant Council List (Category 1 or 2)

General Description or Comments: Potential project. Drainage in floodplain- filled wetland. Drainage starts upstream of FWB Housing Authority-multiple family structures built on filled wetland. Stream is diverted through underground pipes that re-emerge at Bass Ave crossing. Drainage is exposed channel with 2 more road crossings (concrete 2-cell box culvert), then drains into Santa Rosa Sound after crossing under Hey 98. Entire system is stressed, with poor water quality, riprapped banks. Riparian is freshwater forested/shrub system with invasive species. Culverts appear undersized and obstructed; no tidal flushing. Homeless camps (2) in riparian. Underground utilities corridor in riparian and crossing drainage. Culvert at outfall into sound, almost totally blocked.

Project Name OCCSRM **NER ID#** 11B/ 5, 6, 7V

Soils/Substrate Hydric X Y ____N NRCS Code / Name _____

Depth (inches)	Horizon	Texture	Muncell Matirx	Color Redox	% Redox	Comments
		Muck, inundated				

Soils disturbed X Y ____N Recent / Not Recent Probable cause is storm related ____Y X N

Indicators: Erosion Sediment Deposition Agriculture Fire Fill Excavation Mixed Horizons

Observations match NCRS mapped description ____Y ____N

Hydrology Associated with streams, estuarine environments. Named waterbody Drainage into Santa Rosa Sound

General health of system ____High ____Moderate X Low Flooded X Y ____N

Natural channel ____Y X N Flow/Tidal flushing ____Normal ____Obstructed

Obstructions: Sediment Woody debris Herbaceous mats Trash/Litter Algal mats Berm

Water Quality Indicator: Turbidity ____High X Moderate ____Low ____Clear/stained

Vegetated shoreline: Emergent herbaceous species Overhanging trees/shrubs Stabilized banks SAV

Connectivity to upstream systems X Y ____N Fringing wetlands X Y ____N

Wildlife Observations

Habitat General Condition: ____Pristine ____Moderate X Poor Function: ____High ____Moderate X Low

Indicator of use: Nests Dens Burrows Tracks/Trails Scat Carcass Bones Fur Feathers Skin

Usage Obstruction: Fence Wall Culvert Utility corridor Poles/perches Fragmentation

Incidental Sighting, General Description: (species observed, gender, age, activities, count)

No wildlife was observed during site visit. Homeless camp in riparian.

Other Land Use Within system of assessment X Nearby/Adjacent X Distance away 0.1 mi

Recreation usage Adjacent park and playground Agriculture usage _____

Development: Residential Commercial Institutional Industrial

Within waterbody: Armoring Docks/Boat slips Mooring Marina Channel Markers

404(b)(1) EVALUATION REPORT
FOR
OKALOOSA COUNTY, FLORIDA HURRICANE AND STORM DAMAGE REDUCTION PROJECT
OKALOOSA COUNTY, FLORIDA

I. PROJECT DESCRIPTION

Please refer to the figures included in the Environmental Assessment (EA) to which this evaluation is appended.

a. Location. Okaloosa County is located approximately 103 miles east of Pensacola, Florida and 98 miles west of Tallahassee, Florida. The beaches of Okaloosa County encompass approximately 26 miles of shoreline extending from the City of Destin in Okaloosa County, Florida (about six miles to the east of East Pass) to the Walton/Bay County line near Phillips Inlet (Figure 1 in EA). The western two-thirds of Okaloosa County are comprised of a coastal peninsula extending from the mainland, and the eastern third is comprised of mainland beaches. Choctawhatchee Bay lies north of the peninsula. Okaloosa County includes 11.9 miles of state-designated critically eroding areas and three Florida State Park areas that cover approximately six miles of the 26-mile shoreline.

b. General Description of Tentatively Selected Plan (TSP). The TSP for the Okaloosa CSRM Feasibility Study consists of berm and dune nourishment along the shoreline of Okaloosa County in two areas; about 17,000 feet in the Okaloosa Island reach and 16,000 feet in the West Destin reach of the study area. In the Okaloosa Island reach, the plan consists of providing a dune with a crest elevation of 14 feet, NAVD 88, with a crest width of 10 feet with a side-slope of 10 horizontal (H) on 1 vertical (V), and a berm with a crest elevation of 5.5 feet, NAVD 88, with a berm crest width of 10 feet with a foreslope of 15 H on 1 V. The initial nourishment in this area will require about 100,000 cubic yards of fill material. In West Destin, the plan consists of providing a dune with a crest elevation of 14 feet, NAVD 88, with a crest width of 10 feet with a side-slope of 10 H on 1 V, and a berm with a crest elevation of 5.5 feet, NAVD 88, with a berm crest width of 30 feet with a foreslope of 15 H on 1 V. The initial nourishment in this area will require about 900,000 cubic yards of fill material.

c. Authority and Purpose.

This study was authorized within the U.S. House of Representatives and is contained in House Resolution 2758 adopted July 28, 2006, which reads as follows:

"Resolved by the Committee on Transportation and Infrastructure of the United States Senate, in accordance with Section 110 of the Rivers and Harbors Act of 1962, the Secretary of the Army is requested to review the feasibility of providing shoreline erosion control, beach nourishment, storm damage reduction, environmental restoration and protection, and related improvements in Okaloosa County, Florida, taking into consideration the unique characteristics of the existing beach sand and the need to

develop a comprehensive body of knowledge, information, and data on coastal area changes and process as well as impact from federally constructed project in the vicinity of Okaloosa County, Florida.

The Bipartisan Budget Act of 2018 (Public Law 115-123), Division B, Subdivision 1, Title IV, appropriates funding for the study at full Federal expense. As identified under this "Supplemental Appropriation" bill, the study is subject to additional reporting requirements and are expected to be completed within three years and for $3 million dollars:The Non-Federal Sponsor is the Okaloosa County Board of Commissioners. Their central point of contact is the Director of Beach Management for the Okaloosa County TDC.

The purpose of this study is to assess the needs for hurricane and storm damage protection and opportunities for environmental restoration and protection along the Gulf Coast of Okaloosa County, Florida. The purpose of this report is to document the economic investigations, engineering analyses, and environmental considerations completed to formulate a shore protection project for Okaloosa County, Florida, which will reduce the damaging effects of hurricanes and severe storms to properties along the coast and stabilize or restore the shoreline by eliminating long-term erosion. The project will be constructible, acceptable to the public, environmentally sustainable and justified by an economic evaluation.

In addition to storm damage protection the proposed action provides environmental restoration opportunities. Such action would restore valuable dune and beach habitat including sea turtle nesting habitat, shorebird foraging and roosting areas, dune habitat supporting various flora and fauna and general beach ecosystem functions. Restoring a beach-dune system allows greater stability and sustainability of the coastal environment once it has become established. Restoring the beach habitat that supports a variety of associated flora and fauna contribute to the success and continual survival of several threatened or endangered species. The restoration effort will also contribute to the biodiversity of other flora and fauna that naturally occur in the immediate vicinity. Future conditions associated with not restoring the beach and dune system would result in the continued degradation of a valuable beach ecosystem and loss of these types of habitats and associated benefits. The already damaged habitats would remain particularly vulnerable to wave and storm activity that continually threaten and prevent the re-establishment of valuable natural resources.

d. General Description of Borrow Material.

(1) General Characteristics of Material. Sand sources for the project will be dredged from two offshore borrow areas, OKA and OKB. Borrow area OKA is located about 1.5 miles offshore from Okaloosa Island, and is estimated to contain adequate volume. It is currently permitted for use by the non-Federal sponsor and meets state code for sand quality for beach placement. Borrow area OKB is located about 7 miles offshore from Destin, FL. Although not currently permitted, a geotechnical survey was done to determine the quality of the material would meet state code. An additional geotechnical investigation is pending along with permit application with the Florida Department of Environmental Protection (FDEP).

All materials used for beach nourishment will be excavated by hopper/mechanical dredge, transported to the placement area offshore and pumped into the beach template.

(2) Quantity of Material. Borrow area OK-A is believed to contain approximately million cubic yards (mcy) of usable material based on a 2020 survey conducted by USACE. Approximately 15.2 mcy of beach-compatible sand is estimated to be present within the boundaries of OK-B, although no permit exists for its usage at this time. An additional geotechnical investigation and updated condition surveys would determine the feasibility for use of this site for supplemental material. The total estimated volume covers the initial placement and the four planned subsequent renourishments for the life of the project.

(3) Source of Material. Borrow area OK-A and OK-B are shown on Figure 3.2 in the EA.

e. General Description of Discharge Sites.

(1) Location. The proposed Okaloosa County placement sites are located approximately 103 miles east of Pensacola, Florida and 98 miles west of Tallahassee, Florida. The beaches of Okaloosa County encompass approximately 26 miles of shoreline extending from the City of Destin in Okaloosa County, Florida (about six miles to the east of East Pass) to the Walton/Bay County line near Phillips Inlet (Figure 1 in EA).

(2) Type of Site. The beach placement sites are typical of Florida Panhandle coastal beaches and the nearshore Gulf of Mexico with predominately marine sand substrate.

(3) Types of Habitat. The beach and nearshore area at the proposed Okaloosa County project site support a highly variable marine environment that is typical of the nearshore zones of the northwest Florida Gulf of Mexico as described in the EA. These areas are characterized by clean white sands and clear blue-green ocean waters.

(4) Timing and Duration of Discharge. Timing of project construction is not known at this time. Once constructed, renourishment activities are expected to be conducted at predefined intervals or as necessary depending upon storm activity. Renourishment activities would be scheduled as much as possible to coincide with environmental windows to avoid conflicts with sea turtles, shorebirds, and other protected species and critical habitats.

f. Description of Discharge Methods. All materials used for beach nourishment will be excavated by hopper/mechanical dredge, transported to the placement area offshore and hydraulically pumped into the beach template. Heavy earth moving equipment such as bulldozers would be utilized to achieve the final design template. The use of hopper dredge equipment will adhere to the terms and conditions set forth within the BO's on hopper dredging in the U.S. South Atlantic and Gulf of Mexico waters (most recently, January 9, 2007, RBO to the USACE' four Gulf of Mexico districts) would be implemented to minimize the potential of sea turtles and Gulf

sturgeon take as a result of entrainment in the dredge. Placement of material on the proposed beach sites will adhere to the negotiated terms and conditions BO's resulting from the formal consultation processes and negotiated conditions specified under the PBO for Beach Placement and Shore Protection for the State of Florida.

g. Alternatives to the Proposed Action. In general, future conditions associated with not restoring the beach and dune system (No Action Alternative) would result in the continued degradation of a valuable beach ecosystem and loss of these types of habitats and associated benefits. Previously damaged habitats would remain particularly vulnerable to wave and storm surge activity from continual threat and would prevent the re-establishment of valuable natural resources. Desired opportunities to implement beach and dune restoration would be lost, including vegetation re-establishment of critical areas along the shoreline of Okaloosa County. As the area vulnerability persists, even minor storm activity threatens valuable dune and beach habitat. A no-action scenario deprives the ecosystems of much needed stability and sustainability that is characteristic of a healthy coastal environment.

II. FACTUAL DETERMINATIONS

a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The placement of material on the beach and in the nearshore areas would be accomplished in such a manner as to replicate the existing beach elevation/slope but at a distance seaward of the existing mean high water elevation as specified by the approved preferred plan. After placement, the beach fill would be subject to modifying effects of the natural wave climate of the Gulf of Mexico and within six months should reach equilibrium. This short-term change in natural elevation and slope would not pose a significant impact to the resources of the area or circulation in the nearshore Gulf of Mexico.

(2) Fill Type. The material to be utilized in the beach renourishment project is predominantly medium sized sand. The composite grain size is 0.30 mm, has a visible shell content of around 2 percent and a carbonate content at approximately 5.1%. Greater than 72 percent of the material has a Muncell color of 5Y 7/3 or lighter. This material is compatible with the sand on the Okaloosa County beaches and nearshore littoral zone. Mineral composition and particle size of the substrate would not be significantly altered.

(3) Dredged/Fill Material Movement. A portion of the fill material is expected to be transported westward along the shoreface in the littoral drift system. This movement would not have any adverse impact on the area as the littoral drift is a natural occurrence and the quantity of material expected to be lost to this system is minimal compared to that which is currently in circulation.

(4) Physical Effects on Benthos. Potential impacts could occur from dredging and placement activities. Dredging sediments for restoration uses would cause a direct temporary disruption to the benthic community located in borrow areas and in placement areas. Both infauna and epifauna invertebrates including mollusks and

crustaceans would be impacted resulting from the physical removal of sediment from the borrow areas as well as the physical placement of sediment at the placement areas. These communities are well adapted to this type of phenomena and should reestablish within 6 to 24 months after placement.

(5) Other effects. Removal of material from the borrow areas would result in long-term minor changes in bathymetry at the borrow sites. Removal of material would not significantly affect island morphology, the movement of sand, or hydrological processes. The slopes of the inshore borrow areas would be expected to flatten and backfill with sand and finer-grained material over time.

(6) Actions Taken to Minimize Impacts (Subpart H). Since the material to be placed is naturally occurring sand similar to the substrate of the beach nourishment site, no further actions are deemed necessary.

b. Water Column Determinations

(1) Salinity. There would be no changes in gradients or patterns.

(2) Water Chemistry (pH, etc.). The material proposed for placement is medium grained marine sand as described in the EA. These areas are far removed from any known sources of contaminants. Also, the material is primarily composed of unconsolidated quartz sand which is considered inert and in areas of high current and wave energy conditions. Such materials under high energy conditions are considered most likely free of contaminants. Based on 40 CFR 230.60, no testing for contaminants will be necessary. This sandy material in relict beach sand and is similar to sand found on the proposed beach placement sites.

(3) Clarity. The discharging of effluent is expected to create minor degree of construction-related turbidity in excess of the natural condition in the proximity of the placement site and the borrow area. These impacts are expected to be temporary, with suspended particles settling out within a short time without measurable effects on water quality. During construction, turbidity levels would be monitored at the dredge and the beach sites, to ensure compliance with FDEP's WQC.

(4) Color. The color of the proposed borrow sand matches that of the beach sand to the extent acceptable by the State of Florida's Sand Quality Control (QC) and Quality Assurance (QA) required by paragraph 62B-41.008 (1) (k) (4b) F.A.C.

(5) Odor. No effect.

(6) Taste. No effect.

(7) Dissolved Gas Levels. No significant effect.

(8) Nutrients. No significant effect.

(9) Eutrophication. No effects.

c. Water Circulation, Fluctuation, and Salinity Determinations

(1) Current Patterns and Circulation.

(a) Current Patterns and Flow. Neither the placement of material on the beach nor the proposed excavation is expected to result in significant changes in current patterns or circulations. In the area of proposed excavation, currents would be slightly modified due to the increase depth.

(b) Velocity. No significant effects.

(2) Stratification. No significant effects.

(3) Hydrologic Regime. No significant effects.

(4) Normal Water Level Fluctuations. No effects.

(5) Salinity Gradient. No significant effects.

d. Suspended Particulate/Turbidity Determination.

(1) Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Placement Site. Discharging of effluent is expected to create minor effect of construction-related turbidity in excess of the natural condition in the proximity of the placement site and the borrow area. The generation of turbidity is a potential risk as it would increase due to activities. The increased turbidity could reduce light penetration through the water column, thereby reducing photosynthesis affecting surface water temperatures and aesthetics in the vicinity. These anticipated conditions could also alter visual predator-prey relations and result in respiratory stresses in fish. These impacts are expected to be temporary, with suspended particles settling out within a short time without measurable effects on water quality. During construction, turbidity levels would be monitored at the dredge and beach sites, to ensure compliance with FDEP's WQC.

(2) Effects on Chemical and Physical Properties of the Water Column.

(a) Light Penetration. Slight decreases in the degree of light penetration may occur during placement activities. These impacts would be temporary in nature and restricted to the immediate area of placement.

(b) Dissolved Oxygen. Changes in DO and nutrients could occur due to mixing and release of sediments into the water column during sediment removal and placement. These impacts would be temporary in nature and restricted to the immediate area of placement.

(c) Toxic Metals and Organics. No effects.

(d) Pathogens. No effects.

(e) Aesthetics. Only temporary degradation to the aesthetic environment are anticipated as a result of excavation and placement operations. Impacts would primarily result from the use of heavy equipment. Some minor increases in turbidity may be observed in the immediate vicinity of excavation and placement activities but

these increases would be minor and short-term in nature.

(3) Effects on Biota.

(a) Primary Production Photosynthesis. No long-term significant impacts are expected to occur due to the physical nature of the material to be excavated. No submerged aquatic vegetation is located within the area of dredging or sand placement.

(b) Suspension/Filter Feeders. No significant effects. No oyster reefs, worm reefs, significant clam communities are known to be prominent within the vicinity of the project.

(c) Sight Feeders. No significant effects.

(4) Actions Taken to Minimize Impacts (Subpart H). No further actions are deemed appropriate.

e. Contaminant Determinations. The material to be utilized during restoration of the beach meets the criteria set forth in 20 CFR 230.60(b). The material is characterized as clean sand which is sufficiently removed from sources of pollution and is located in areas of high current velocities to provide reasonable assurance that the material would not be contaminated by such pollution. In addition, the material originates in the near vicinity of the placement activity and is similar to the substrate of the placement site, and receives the same overlying waters as the placement site. Hence, no further physical, biological, or chemical testing is required pursuant to the 404(b)(1) Guidelines. However, on April 20, 2010, the floating semi-submersible mobile offshore drilling unit Deepwater Horizon experienced an explosion and fire. The well began leaking into the Gulf of Mexico. The total amount of oil and natural gas that has escaped into the Gulf of Mexico is unknown but is expected to be several million gallons. At the time, the spill was known to cause extensive damage to marine and wildlife habitats as well as the Gulf's fishing and tourism industries. Ongoing monitoring is underway by multiple organizations to assess the impacts.

f. Aquatic Ecosystem and Organism Determinations. No significant effects.

(1) Effects on Plankton. Placement of nourishment material on the Okaloosa County beaches and the nearshore area would destroy some phytoplankton and zooplankton. This scenario could reduce light penetration which may tend to have an effect on the primary production by the phytoplankton. Due to the nature of the materials to be placed and the duration of the placement operations, these impacts would be short-term in nature and restricted to the general vicinity of the construction activity. Total impacts to the planktonic community would not be significant.

(2) Effects on Benthos. Temporary disruption of the aquatic community is anticipated by the excavation and placement activities. The excavation and direct placement of sands from the borrow sites would result in the mortality of some percentage of the existing benthic assemblages. Non-motile benthic fauna within the area may be destroyed by the proposed work, but should repopulate within several months after completion. Some motile benthic and pelagic fauna, such as crabs, shrimp, and fishes are able to avoid the disturbed area and should return shortly after

the activity is completed. Larval and juvenile stages of these forms may not be able to avoid the activity due to limited mobility.

(3) Effects on Nekton. Some fish within or in close proximity to the excavation and placement area would likely leave the area until conditions return to be more favorable; however, it is not anticipated that all such organisms would vacate the area. It is logical to speculate that many organisms would avoid an area of disruption such as that associated with the placement of fill material. Some nektonic filter feeders may experience mortality due to presence in the affected area, and other organisms less capable of movement, such as larval forms, may be physically stressed by the placement of sand. Generally, most organisms would avoid the area and later return to the area. Total impacts to the nektonic community would quickly recover are not considered significant.

(4) Effects on Aquatic Food Web. No significant effects.

(5) Effects on Special Aquatic Sites. No significant effects.

(a) Sanctuaries and Refuges. Not applicable.

(b) Wetlands. Not applicable.

(c) Mud Flats. Not applicable.

(d) Vegetated Shallows. Not applicable.

(e) Coral Reefs. Not applicable.

(f) Riffle and Pool Complexes. Not applicable.

(6) Effects on Threatened and Endangered Species. Pursuant to Section 7 of the Endangered Species Act, the proposed Federal action is being coordinated with the USFWS and the NMFS. Coordination with the agencies indicates that the proposed action would not jeopardize the continued existence of nesting sea turtles or Choctawhatchee beach mouse or result in adverse modification of the Choctawhatchee beach mouse critical habitat that is present immediately adjacent to the project area. The USFWS has, imposed terms and conditions to be implemented that would minimize the potential for incidental takes. It has also been determined that the proposed action may adversely affect non-breeding piping plover. Consultation regarding impacts to piping plover has been initiated. The USFWS also agrees with the USACE' determination that the selected plan would not likely adversely affect designated critical habitat for non-breeding piping plover, the West Indian manatee, and the recently listed Giant manta ray. Based on the formal consultations regarding threatened and endangered species and associated designated critical habitats, no mitigation requirements have been identified.

The USACE would use Standard Manatee Protection Conditions during construction and surveys for the protected species, piping plover and red knot, would occur. To minimize the potential of sea turtles and Gulf sturgeon take during construction the USACE would continue to abide by the terms and conditions of the following: (1) RBO

for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts(GRBO), dated November 19, 2003, as amended; PBO for Beach Placement and Shore Protection for the State of Florida (SPBO) 2015; and site-specific BO's resulting from the consultation processes.

(7) Effects on Other Wildlife. No significant effect.

(8) Actions to Minimize Impacts. All reasonable and prudent measures recommended by the USFWS and NMFS would be initiated during excavation and placement activities.

g. Proposed Disposal Site Determinations.

(1) Mixing Zone Determination. The proposed action would comply with the zone of mixing as determined by the State of Florida. In the case of placement of material on the beach and a variance from the state mixing zone to cover specific climatic instances when the turbidity standard might be violated and will be incorporated into the WQC permit. A variance from the state mixing zone at the placement sites may be requested as part of the permitting process.

(2) Determination of Compliance with Applicable Water Quality Standards. As a result of previous WQC application activities, it is believed that the proposed Federal action would comply with applicable water quality standards. The FDEP is the lead agency for administering the state's coastal program. WQC with the state coastal management plan will be requested from FDEP for the proposed TSP during the PED phase of this project.

The USACE, Mobile District has determined that following the review of the Environmental Assessment, the selected plan is consistent with the Florida Coastal Program to the maximum extent practicable, and that the selected plan is the least environmentally damaging practicable alternative based on the impact analysis disclosed in the Environmental Assessment.

The USACE, Mobile District is requesting FDEP concurrence with USACE's determination. Mobile District will pursue the CZM consistency determination specific to the RP from the FDEP as required under the CZMA during Project Engineering Design (PED) phase of this project. Restoration of the state's beaches is a policy statement with the state Coastal Zone Management Plan Chapter 161 (Coastal Construction).

(3) Potential Effects on Human Use Characteristics.

(a) Municipal and Private Water Supply. No impacts would occur to any water supply.

(b) Recreational and Commercial Fisheries. Minor impacts to recreational and commercial fisheries could occur during the construction period. These impacts would be short-term and restricted to the immediate area of construction activities.

(c) Water Related Recreation. Restoration of the beach would increase

the area available for beach related water recreation. Sediment removal and placement would temporarily disrupt fish distribution and localized commercial and recreational fishing in the immediate vicinity of the activities. Potential temporary impacts may include noise, visual intrusion, and turbidity. Restrictions of water-related recreational activities in the immediate areas of construction and dredging would result in short term losses of such opportunities. It has been determined that the benefits associated with the restoration of the beach outweigh these losses.

(d) Aesthetics. Temporary degradation to the aesthetic environment would occur as a result of the proposed action. Impacts would primarily be a result of the physical presence of heavy equipment. Conducting work in late fall and early spring would miss the peak recreational season; however, it is impossible to completely avoid all impacts to the aesthetic appeal of the area. Some discoloration of the sand would occur following placement as sand placement on the beach is excavated from anaerobic environment. Bleaching of the sand should occur within a few months. Rainfall and wave action would filter out fine grained materials from the restored beaches and increase the compatibility of the nourishment sands with those presently on the beach.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. The Gulf Island National Seashore occurs within the project area, and as such, would experience disturbance by the proposed activities. The National Park Service, who manages the National seashore, is in coordination with USACE Mobile District, and is a collaborating partner in the NEPA action for this proposed project. Impact to the shoreline is considered temporary and ultimately, the proposed action will benefit the beach and dune ecosystems.

Similarly, the shoreline along Okaloosa Island is a designated Outstanding Florida Water (OFW) by the state with jurisdiction under the FDEP. Although temporary impact will occur to the OFW, the proposed action will ultimately benefit the designated area within the project footprint.

(f) Other Effects. No effect.

h. Determination of Cumulative Effects on the Aquatic Ecosystem. The proposed action is not expected to have significant cumulative adverse impacts. The action would have cumulative beneficial impacts due to erosion attenuation and habitat restoration.6457

i. Determination of Secondary Effects of the Aquatic Ecosystem. The proposed action is not expected to have any significant secondary adverse effects on the aquatic ecosystem.

III. FINDING OF COMPLIANCE

a. No significant adaptations of the Section 404(b)(1) guidelines were made relative to this evaluation.

a. b. No practicable alternative exists which meet the study objectives that does not involve discharge of fill into the waters of the United States. The “no action” alternative was deemed unacceptable.

c. After consideration of placement site dilution and dispersion, the placement fill material along the beach and nearshore zone would not cause or contribute to, violations of any applicable State water quality standards for Class III waters. A variance for an expanded mixing zone will be requested for the local project during the JCP application process.

d. As required by the CZMA, the proposed action is consistent with the Florida Coastal Zone Management Program to the maximum extent practicable.

e. The proposed excavation and beach restoration would not jeopardize the continued existence of any species listed as threatened or endangered or result in the likelihood of destruction or adverse modification of any critical habitat as specified by the Endangered Species Act of 1973, as amended.

f. The proposed action would not result in significant adverse effects on human health and welfare, including municipal and private water supplies; recreation and commercial fishing; life stages of organisms dependent upon the aquatic ecosystem; ecosystem diversity, productivity and stability; or recreational, aesthetic or economic values.

g. Appropriate and practicable steps to minimize potential adverse impacts on the aquatic ecosystem have been included in this evaluation. No wetlands or submerged aquatic vegetation would be destroyed by the proposed action.

h. On the basis of the guidelines, the proposed action is specified as complying with the requirements of these guidelines with the inclusion of appropriate and practical conditions to minimize or address adverse effects to the aquatic ecosystem.

DATE_____ _____

Jeremy J. Chapman
Colonel, U.S. Army
District Commander

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

Coastal Environmental Team
Planning and Environmental Division

Mr. David Bernhardt
U.S. Department of Commerce
NOAA Fisheries Service
Southeast Regional Division
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Mr. Bernhardt:

The U.S. Army Corps of Engineers (USACE), Mobile District, is conducting the Okaloosa County Coastal Storm Risk Management (CSRM) Feasibility Study to determine if there is Federal interest in a plan to reduce damages to infrastructure as a result of flooding from storm surge, tides and waves during coastal storms and hurricanes along the shoreline of Okaloosa County. Progress of this authorized study has led to the development of a Tentatively Selected Plan (TSP) that will identify the study problems and meet its objectives.

PROPOSED ACTION

TSP for the Okaloosa CSRM Feasibility Study consists of berm and dune nourishment in the Okaloosa Island and West Destin reaches of the study area. In the Okaloosa Island reach (R01 – R15), the plan consists of providing a dune with a crest elevation of 14 feet and a crest width of 10 feet; and a berm with a crest width of 10 feet and a crest elevation of 5.5 feet. In West Destin reach (R18 – R32), the plan consists of providing a dune with a crest elevation of 14 feet and a crest width of 10 feet, and a berm with a crest width of 30 feet and a crest elevation of 5.5 feet. No work will occur within the Coastal Barrier Resource Areas (CBRA) units 32 and 32P on the east Destin shoreline.

Sand sources for the project will be dredged from two offshore borrow areas, Okaloosa borrow area A (OKA) and Okaloosa borrow area B (OKB). Borrow area OKA is located about 1.5 miles offshore from Okaloosa Island, and is estimated to contain adequate volume for the initial construction. It is currently permitted for use by the Non-Federal Sponsor and meets state code for sand quality for beach placement. Borrow area OKB is located about 7 miles offshore from Destin, Florida. Although it's not currently permitted, a geotechnical survey has determined the quality of the material would meet the state code. Additional geotechnical investigation is pending along with permit application with the Florida Department of Environmental Protection.

Details on the proposed TSP can be found in the project's Feasibility Report with Integrated Environmental Assessment (FR/EA). Enclosures depict the borrow area locations and material placement plan view along with profiles of typical placement for both Okaloosa Island and west Destin shorelines. Approximately 1 million cubic yards (cys) of

sandy material will be dredged from borrow area OKA utilizing either a hydraulic (hopper or cutterhead) or mechanical dredge(s) during the initial project construction. This sandy material would be placed within the identified beach template via pipeline(s) and redistributed throughout the area utilizing heavy equipment, such as bulldozers. The project footprint below the water encompasses approximately 58 acres of beach fill and approximately 700 acres from borrow area OKA. Borrow area OKB includes another 806 acres and would be utilized for future re-nourishment events anticipated to occur every 10 years. Borrow area OKA and OKB range in water depths of -38 to -49 feet and -67 to -71 feet NAVD88, respectively.

Construction of the proposed TSP would reduce hurricane and storm damage to infrastructure along the front beach project areas and would enhance wildlife habitat along the shoreline of Okaloosa County, Florida.

PROTECTED SPECIES WITHIN PROPOSED ACTION

Table 1 provides the species listed by National Marine Fisheries Service (NMFS) Protected Resources Division (PRD) as either threatened, endangered, or a candidate for federal protection within the Gulf of Mexico in Okaloosa County, Florida.

Species	***Scientific Name***	***Status***
Blue whale	*Balaenoptera musculus*	E
Finback whale	*Balaenoptera physalus*	E
Humpback whale	*Megaptera novaengliae*	E
Bryde's whale	*Balaenoptera edeni eden*	E
Sei whale	*Balaenoptera boreal*is	E
Sperm whale	*Physeter macrocephalus*	E
Green sea turtle	*Chelonia mydas*	E
Hawksbill sea turtle	*Eretmochelys imbricate*	E
Kemp's ridley sea turtle	*Lepidochelys kempii*	E
Leatherback sea turtle	*Dermochelys coriacea*	E
Loggerhead sea turtle	*Caretta caretta*	T
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	T
Giant Manta Ray	*Manta brostris*	T
Smalltooth sawfish	*Pristis pectinate*	E

Table 1: *Threatened and Endangered Species under NMFS-PRD Purview*

Gulf sturgeon (*Acipenser oxyrinchus desotoi)* and the giant manta ray (*Manta brostris*) may occur within the project area as well as the sea turtles listed above. Smalltooth sawfish are found in southwest Florida from Charolette Harbor to the southern tip of the state so their presence in the project area is very unlikely. Whale species, including Bryde's whale, are typically not found in these shallow areas so there is a low likelihood of occurrence within the proposed action area.

Sea Turtles

The five listed sea turtles included on Table 1 may occur along the coastline of Okaloosa County. In open marine waters, these species forage and migrate along the Gulf coastline including Okaloosa County. Hopper dredge entrainment is a documented source of sea turtle mortality. Conducting hopper dredging operations within the waters of the Gulf of Mexico, especially during turtle nesting season (April through November) or when water temperatures are above 11ºC creates an increased risk for taking sea turtles. In the event that a hopper dredge is used, protection of these species during activities associated with hopper dredging is addressed in the Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts (GRBO) (Consultation Number F/SER/2000/01287) dated November 19, 2003 and associated amendments in 2005 and 2007. The GRBO states that hydraulic cutterhead dredging, another potential option for this project, would have discountable impacts to sea turtles.

Gulf Sturgeon

Gulf sturgeon are described as benthivores (bottom feeders) that change their diets and foraging areas during different life stages. Adult fish are bottom feeders, eating primarily invertebrates, including brachiopods, insect larvae, mollusks, worms and crustaceans. Gulf sturgeon are anadromous, with reproduction occurring in fresh water. Most subadult and adult Gulf sturgeon occur in bay and estuaries, such as Choctawhatchee Bay, and the nearshore of the Gulf of Mexico. Winter migrations are an important strategy for feeding and for occasional travel to rivers for possible spawning and resultant genetic interchange among subpopulations Bays and portions of Gulf of Mexico waters adjacent to the lakes and bays near the mouths of the rivers where Gulf sturgeon occur are believed to be important for feeding and/or migrating; inter-river migrations facilitate maintenance of the natural hierarchy of between river genetic variability (Federal Register Vol 68 no. 53, 2003). Gulf sturgeon are reported to migrate along the coastline of the Gulf of Mexico following prevailing currents and access Choctawhatchee Bay through East Pass.

The Okaloosa County CSRM study area is located within Gulf sturgeon Critical Habitat (CH) Unit 11 which encompasses the nearshore of Gulf of Mexico. The northern Gulf Of Mexico boundary is the mean high water of the mainland shoreline and the 72 COLREGS lines at passes as defined at 30 CFR 80.810 (a-g). The southern boundary of the unit is 1 nm (1.9 km) offshore of the northern boundary; the eastern boundary is the line of longitude 85°17.0′W from its intersection with the shore (near Money Bayou between Cape San Blas and Indian Peninsula) to its intersection with the southern boundary. East Pass and Choctawhatchee Bay CH Unit 12 adjoins this unit but is not in the project area. The CH Unit 11 primary constituent elements of concern include winter feeding and migration habitat for juvenile and adult species (Federal Register March 19, 2003, 68 FR 13369).

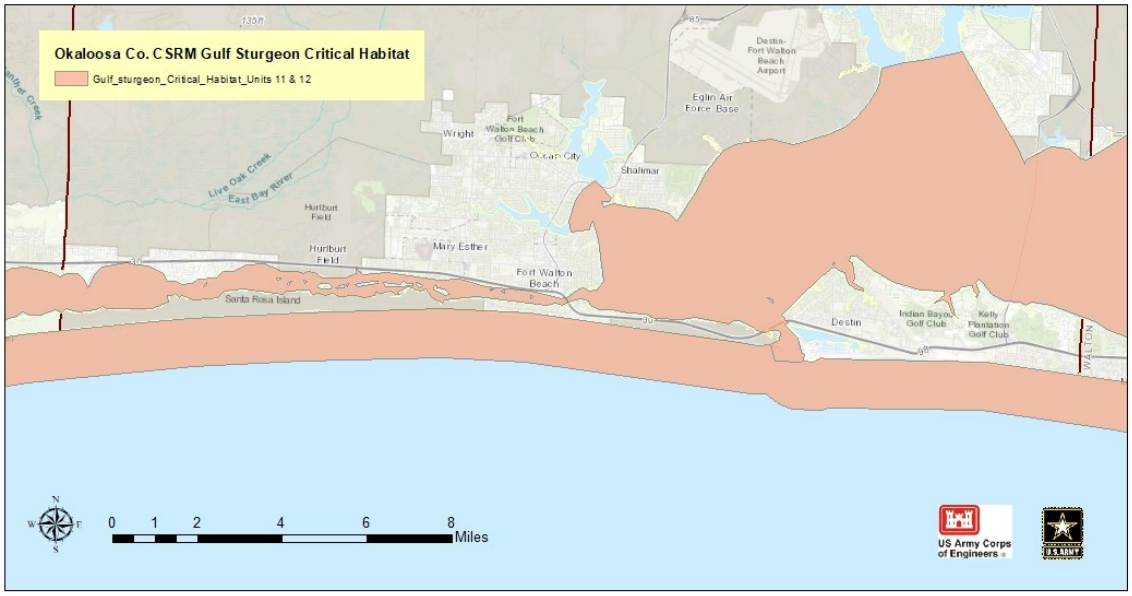


***Figure 1**: Critical Habitat Units 11 and 12 occurring in Okaloosa County coastal environment*

Bryde's Whale

Bryde's whales are members of the baleen family. They are the only resident whale found in the Gulf of Mexico. Less than 100 individuals are estimated to remain in Gulf. Although protected under the Marine Mammal Protection Act, NOAA listed the Bryde's whale for further protection under the Endangered Species Act (ESA) in 2019. No critical habitat has been designated for this species. Furthermore, no documented sightings of this whale have been reported along the coastline of Okaloosa County. Based on the vicinity of the project, whale species will not migrate to shallow areas. The proposed project is not likely to adversely affect Bryde's whale.

Giant Manta Ray

The giant manta ray (*Mobula birostris*) is the largest of the ray species with a wingspan of up to 29 feet. They are circumglobal and are typically found in tropical and subtropical waters but can also be found in temperate waters. They are filter feeders and eat large quantities of zooplankton. Giant manta rays are slow-growing, migratory animals with small, highly fragmented populations that are sparsely distributed across the world.

The main threat to the giant manta ray is commercial fishing, with the species both targeted and caught as bycatch in a number of global fisheries throughout its range. Manta rays are particularly valued for their gill rakers, which are traded internationally. In 2018, NOAA Fisheries listed the giant manta ray as threatened. This species of ray can be found infrequently in the Okaloosa CSRM project area. Dredging and placement of material on the beach would cause temporary impact of obstruction for migration through the area; however, the giant manta ray could simply avoid these areas during operations. Therefore, the project is not likely to adversely affect this species.

ANALYSIS OF EFFECTS TO GULF STURGEON

Most subadult and adult Gulf sturgeon spend cool months (October or November through March or April) in estuarine areas, bays, or in the Gulf of Mexico. They begin migrating into the coastal rivers in early spring (i.e., March through May) when river water temperatures range from 59°to 68°F (NMFS website, 2020). In the study region, the Choctawhatchee River is the likely waterbody for this migration. Access from the Gulf to the river would be through East Pass and Choctawhatchee Bay, CH Unit 12, which is not included in the project area. Past consultation for the East Pass Federal navigation channel has been undertaken, and although outside of the project area, similar impacts to this action were analyzed (F/SER/2005/06576). The proposed project would temporarily impact the immediate nearshore along Okaloosa Island from R1 to R15, and West Destin from R18 to R33 as well as the two borrow areas, OKA and OKB.

Migratory pathways – Neither the extraction of dredged materials from the borrow areas by the operation of the dredging equipment nor the placement of material on the beach within the project footprint is expected to create barriers to the migration of the species. The East Pass inlet to the Choctawhatchee Bay would not be blocked and the surrounding open ocean frontage of the project provides sufficient buffer of width and appropriate habitat depth for sturgeon passage and foraging during the dredging activities.

Because Gulf sturgeon are benthic omnivores, the modification of the benthos affects the winter feeding and this may temporarily impact these resources in the limits of the project area.

Prey Abundance -- CH Unit 11 provides foraging habitat for the Gulf sturgeon. Upon exiting the rivers where the Gulf sturgeon have spent the summer months foraging sparingly in freshwater, the species initially concentrate and feed around the mouths of the rivers, lakes and bays; then disperse into nearshore areas. Dredging operations may temporarily destroy benthic feeding areas in the swash zone and nearshore within the project limits.

A hydraulic (i.e. hopper/cutterhead) dredge and/or mechanical dredge will be used during the project construction (i.e. dune and beach berm of the project area. Possible impacts to Gulf sturgeon by use of hopper dredge is covered in the GRBO (2003, amended 2005, and 2007). The GRBO states that cutterhead pipeline dredging, another potential option for this project, would have discountable effects to Gulf sturgeon. Should a hopper dredge be utilized, all terms and conditions, including those reasonable and prudent measures, identified in the GRBO will be strictly adhered to minimize potential impacts.

During construction, USACE, Mobile District would continue to abide by the terms and conditions of the GRBO. Based on this information USACE, Mobile District finds that the proposed activity may affect, but is not likely to adversely affect the Gulf sturgeon and is not likely to destroy or adversely modify Gulf sturgeon critical habitat.

USACE, Mobile District requests your concurrence with our determination for proposed action. Should you require any further assistance, please contact Ms. Kathleen McConnell, Biologist, via email at kathleen.k.mcconnell@usace.army.mil or via phone at (251) 694-3804.

Sincerely,

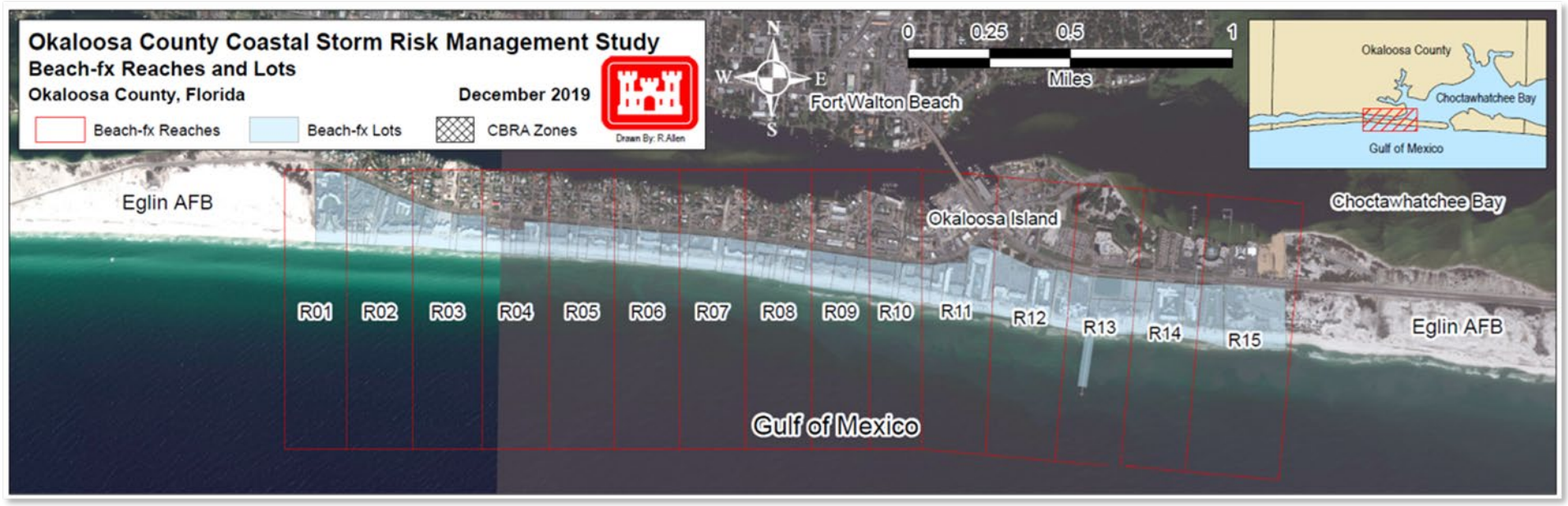
JACOBSON.JENNIFER.L.1230598386

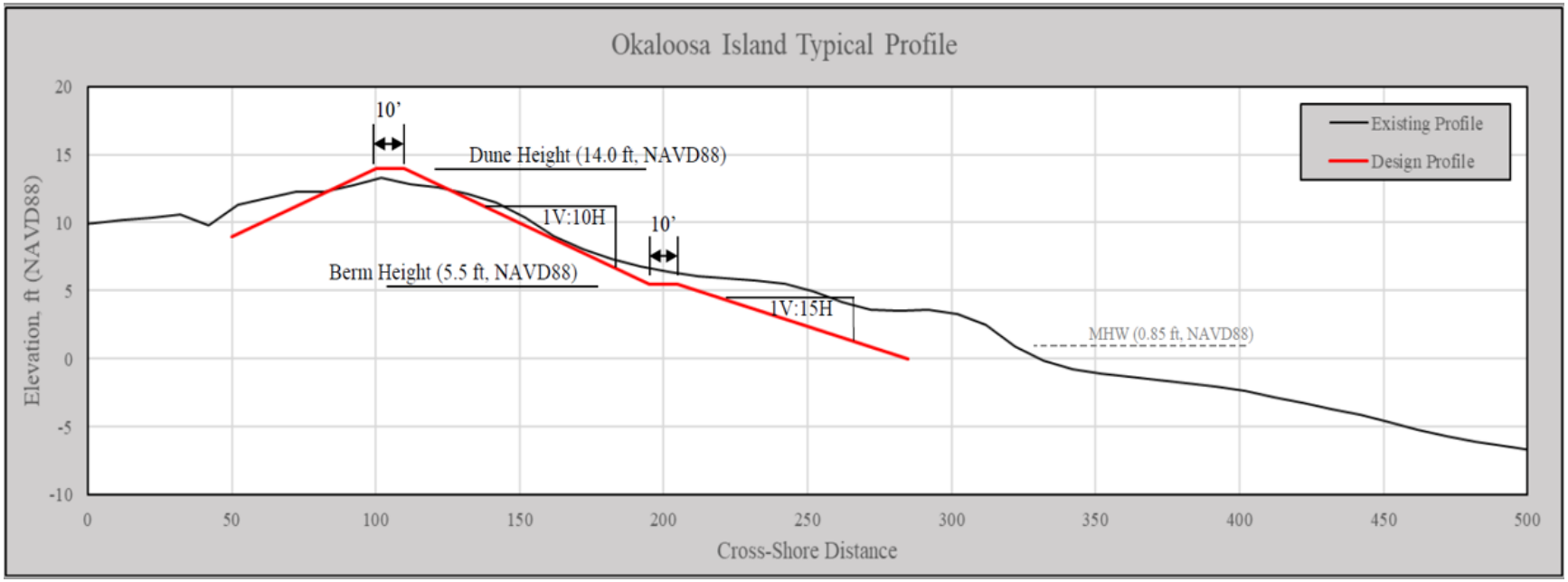
Digitally signed by JACOBSON.JENNIFER.L.1230598386
Date: 2020.12.17 08:41:14 -06'00'

Jennifer L. Jacobson
Chief, Environment and Resources Branch

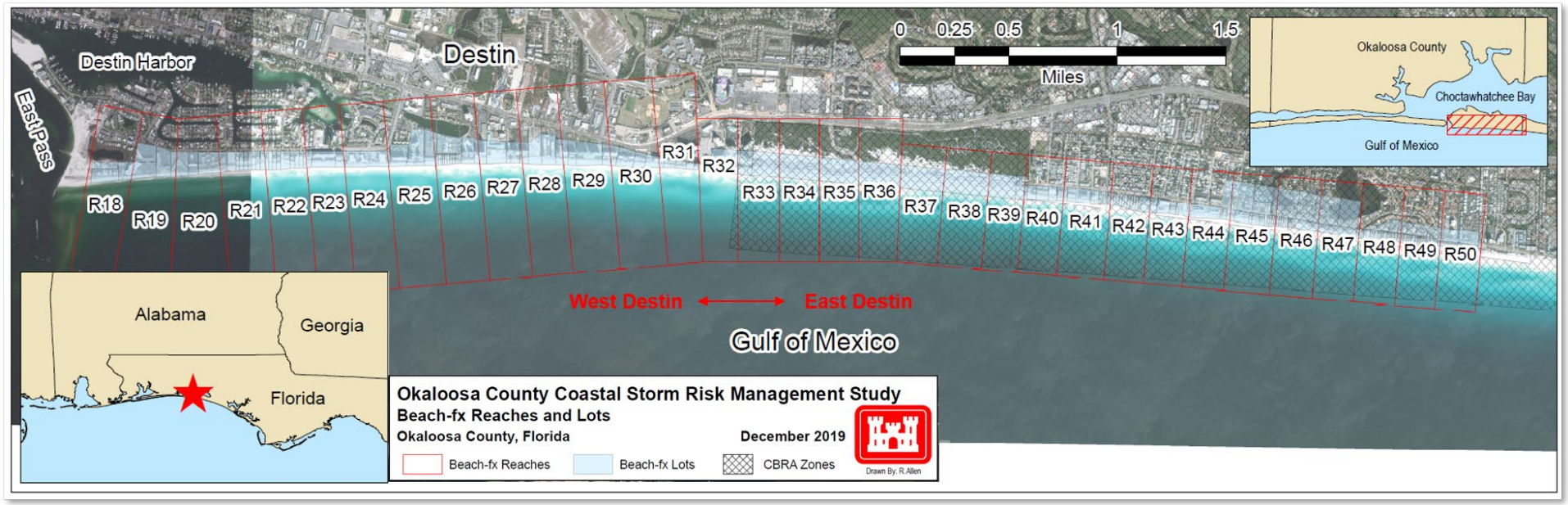
Enclosures

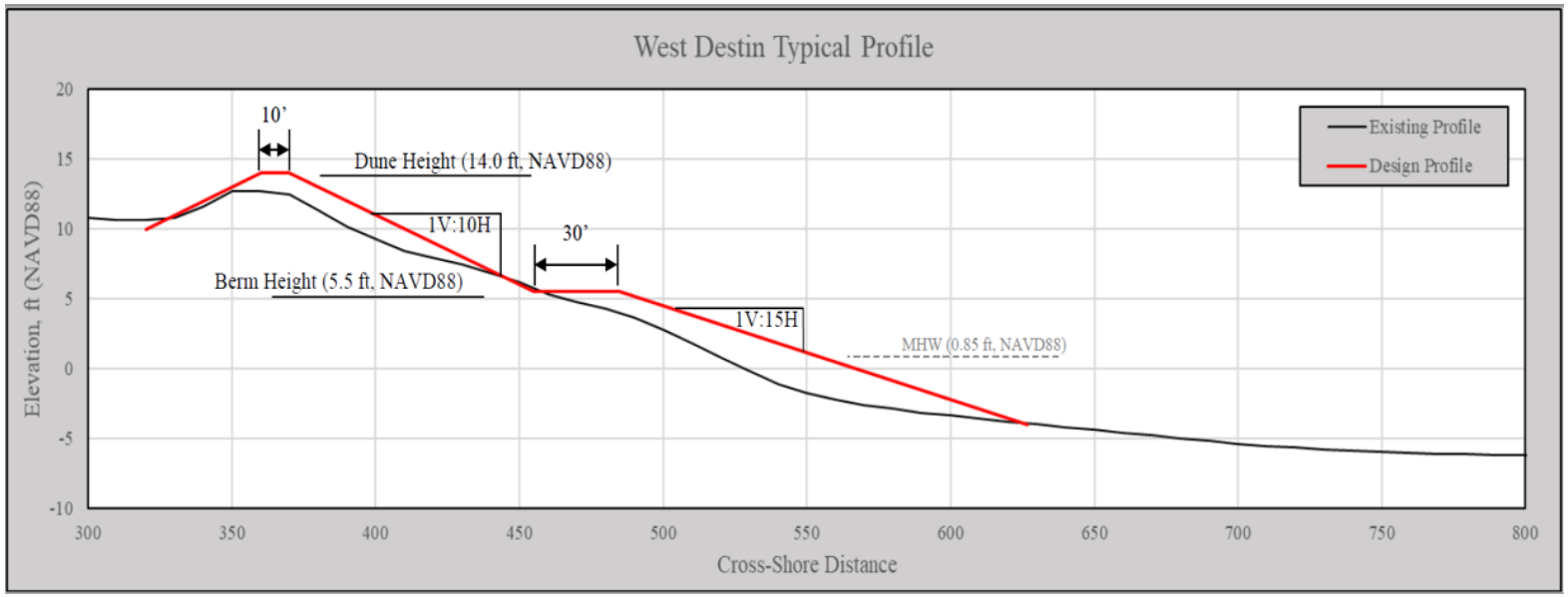
Okaloosa County CSRM Okaloosa Island TSP



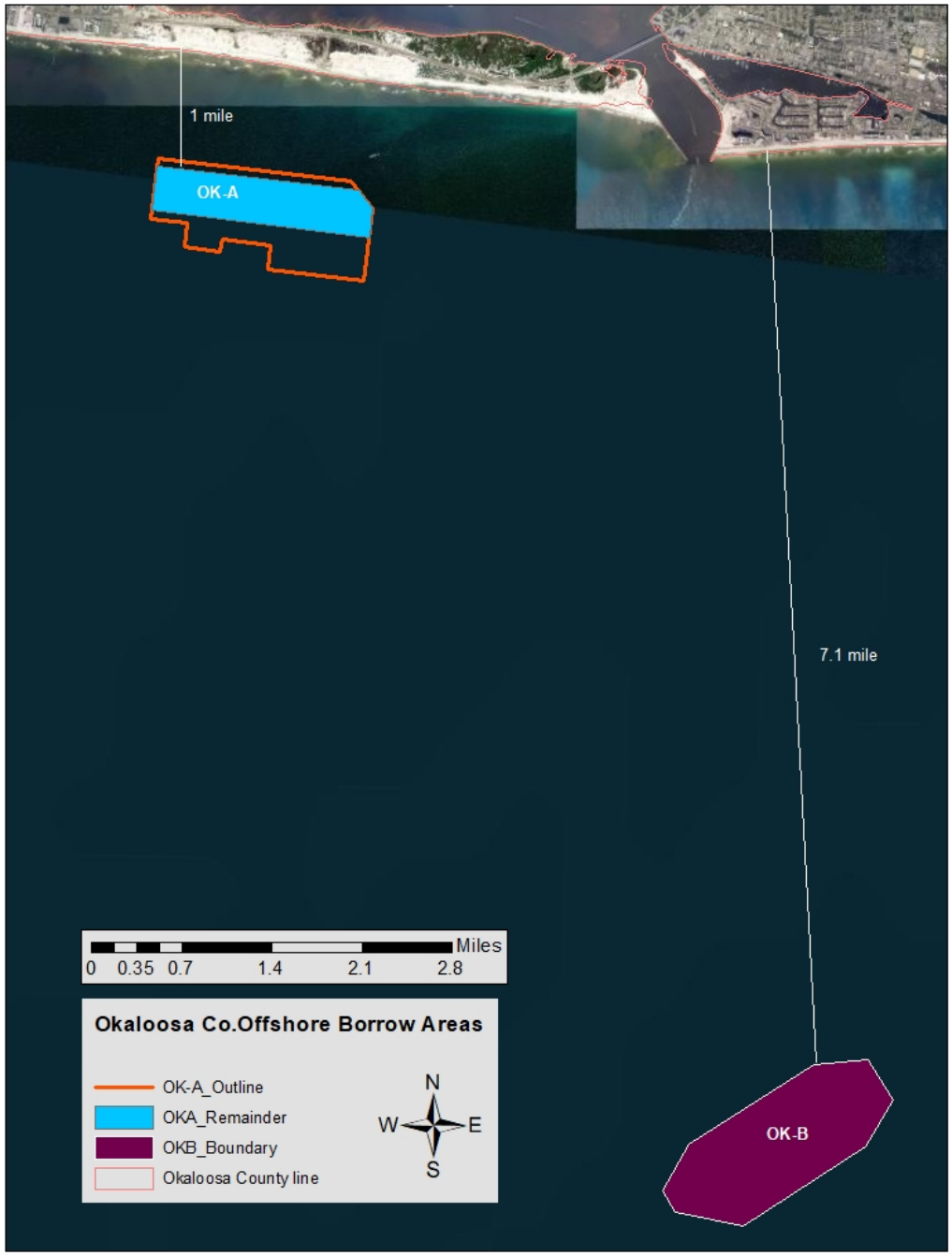


Okaloosa County CSRM West Destin TSP





Okaloosa County CSRM Borrow Areas for Proposed Action TSP



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast

06/24/2021

F/SER31:DMB
SERO-2021-00113

Jennifer Jacobson
Chief, Environmental Resources Branch
Mobile District Corps of Engineers
Department of the Army
PO Box 2288
Mobile, Alabama 36628-0001

Dear Jennifer Jacobson:

This letter responds to your request for consultation with us, the National Marine Fisheries Service (NMFS), pursuant to Section 7 of the Endangered Species Act (ESA) for the following action.

Project Name	Action Agency	SERO Number	Project Type
Okaloosa County Coastal Storm Risk Management (CSRM) Feasibility Study	United States Army Corps of Engineers (USACE), Mobile District	SERO-2021-00113	Dredging and Beach Nourishment

Consultation History
On January 6, 2021, we received your letter requesting consultation. On January 27, March 2, and March 15, we requested additional information. On March 17, 2021, USACE and NMFS held a conference call to discuss the consultation path forward. On March 22, 2021, USACE provided additional project information; NMFS responded that day with a request for more additional information. The USACE responded on March 24 and 26, 2021.

After a review of the information provided, NMFS determined that all portions of the Okaloosa County CSRM Feasibility Study project have previously undergone ESA Section 7 consultation but did not include the giant manta ray, which was listed after these consultations were completed:

1. The 2003 Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts and associated amendments in 2005 and 2007 (SER-2000-01287; hereafter, referred to as the GRBO) covers potential effects to ESA-listed sea turtles, Gulf sturgeon, and smalltooth sawfish from the physical dredging action for areas within (i.e., Borrow Area OKA) and outside (i.e., Borrow Area OKB) of Gulf Sturgeon Critical Habitat Unit 11 (Nearshore Gulf of Mexico). Take of sea turtles, Gulf

sturgeon, and smalltooth sawfish associated with this physical dredging action is also covered under the GRBO.

2. The August 11, 2009, batched Letter of Concurrence for USACE Regulatory permits SAJ-2008-00895 and SAJ-2008-03595 (Western Destin and Santa Rosa Island Beach Restoration, SER-2009-02429) overlaps the Okaloosa County CSRM Feasibility Study project footprint (i.e., Borrow Area OKA and all beach nourishment sections) and specifically addresses effects to Gulf Sturgeon critical habitat from dredging in these areas.
3. The April 1, 2016, Letter of Concurrence for USACE Regulatory permit SAJ-2007-04911 (City of Destin Beach Nourishment, SER-2015-16242) overlaps the Okaloosa County CSRM Feasibility Study project footprint (i.e., Borrow Area OKA and all beach nourishment sections) and specifically addresses effects to Gulf Sturgeon critical habitat from the placement of dredged material in these areas.

At the request of NMFS, USACE South Atlantic Division is in the process of a comprehensive update of the GRBO. The USACE and NMFS anticipate that the updated GRBO, like the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (hereafter, referred to as the updated SARBO; SERO-2019-03111), will include potential effects to giant manta ray from relocation trawling. At this time, USACE will not be conducting relocation trawling for the Okaloosa County CSRM Feasibility Study project under the GRBO, as none of the triggers requiring relocation trawling have been met. Should USACE determine the need for relocation trawling before the completion of the new GRBO, they will reinitiate the Okaloosa County CSRM Feasibility Study project since relocation trawling may affect giant manta rays and the species was not considered in the current GRBO.

We requested additional information regarding species determinations on March 22 and 30, 2021. On March 24, 2021, USACE determined the Okaloosa County CSRM Feasibility Study project would have no effect on the oceanic whitetip shark. On March 30, 2021, USACE determined the Okaloosa County CSRM Feasibility Study project would have no effect on the Gulf of Mexico Bryde's whale. Neither species is expected to occur in the shallow waters within the project area (i.e., 38 to 71-feet [ft]-deep). Oceanic whitetip shark is a pelagic species, remaining offshore in tropical or sub-tropical open ocean waters, on the outer continental shelf, or around oceanic islands in water depths greater than 600 ft. Gulf of Mexico Bryde's whales have been consistently located in the northeastern Gulf of Mexico along the continental shelf at depths of 100-400 meters for the past 25 years.

Having all the information we needed, we initiated consultation on March 30, 2021.

The Okaloosa County CSRM Feasibility Study project has been assigned a tracking number in our NMFS Environmental Consultation Organizer, SERO-2021-00113. Please refer to this number in any future inquiries regarding this project. This consultation addresses potential effects to giant manta ray from the operation of dredging vessels and equipment and the placement of dredged materials in Gulf sturgeon critical habitat. Upon completion of the new GRBO, it is anticipated that this Letter of Concurrence will be replaced by that Regional Biological Opinion.

Project Location

Beach Nourishment Sections	Latitude/Longitude (North American Datum 1983)	Water body
Okaloosa Island (Start at R-001)	30.397493, -86.633126	Gulf of Mexico
Okaloosa Island (End at R-015)	30.393781, -86.585765	Gulf of Mexico
West Destin (Start at R-018)	30.382740, -86.503419	Gulf of Mexico
West Destin (End at R-032)	30.284074, -86.456410	Gulf of Mexico

Offshore Borrow Areas	Latitude/Longitude (North American Datum 1983)	Water body
OKA (Upper Northwest Corner)	30.380027, -86.579617	Gulf of Mexico
OKB (Upper Northwest Corner)	30.264977, -86.511126	Gulf of Mexico

Existing Site Conditions

Okaloosa County is located approximately 40 miles (mi) east of Pensacola, Florida, and 140 mi west of Tallahassee, Florida. The beaches of Okaloosa County encompass approximately 26 mi of shoreline extending eastward from the Santa Rosa-Okaloosa county line to the Okaloosa-Walton county line. The shoreline is interrupted by East Pass, an opening to the Gulf of Mexico from Choctawhatchee Bay located on the west side of the City of Destin, Florida.

Existing site conditions and proposed profiles for the beach nourishment sections, the offshore borrow sites, and the surrounding area can be seen below in Figures 1-5. There are no mangroves, corals, or seagrasses present in the beach nourishment sections or the offshore borrow sites. OKA ranges in water depths of -38 to -49 ft NAVD88. OKB ranges in water depths of -67 to -71 ft NAVD88. OKA is located in state waters within the boundary of Gulf sturgeon critical habitat (Unit 11, Nearshore Florida Gulf of Mexico). OKB is also located in state waters; however, it does not occur within the boundary of any designated critical habitat.

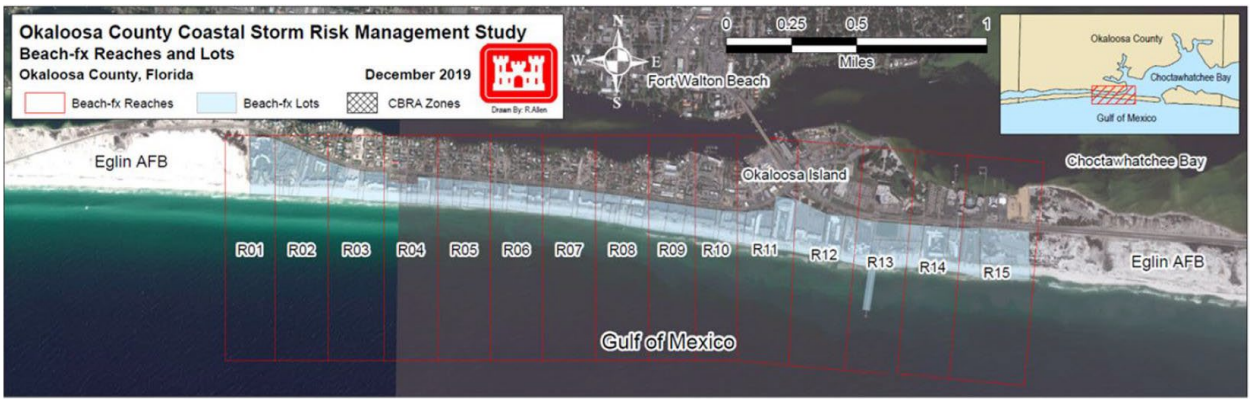


Figure 1. Satellite Image of the Okaloosa Island Nourishment Sections supplied by USACE Mobile

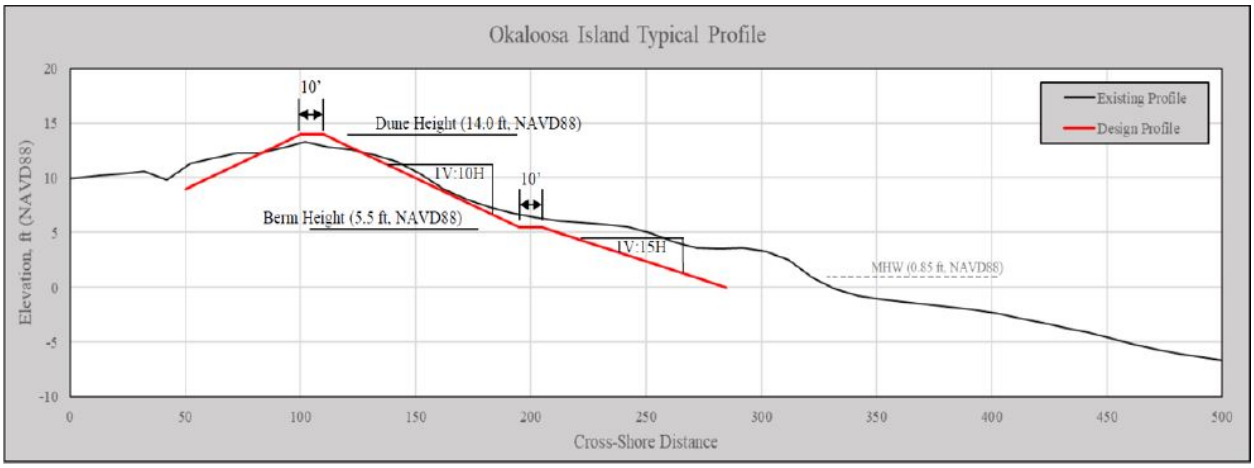


Figure 2. Okaloosa Island Existing and Design Profiles Supplied by USACE Mobile

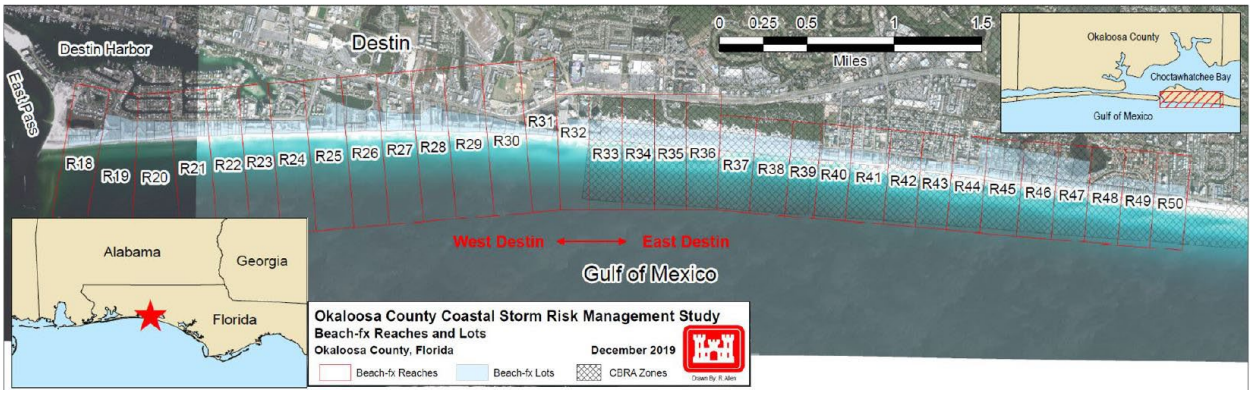


Figure 3. Satellite Image of the West Destin Nourishment Sections Supplied by USACE Mobile

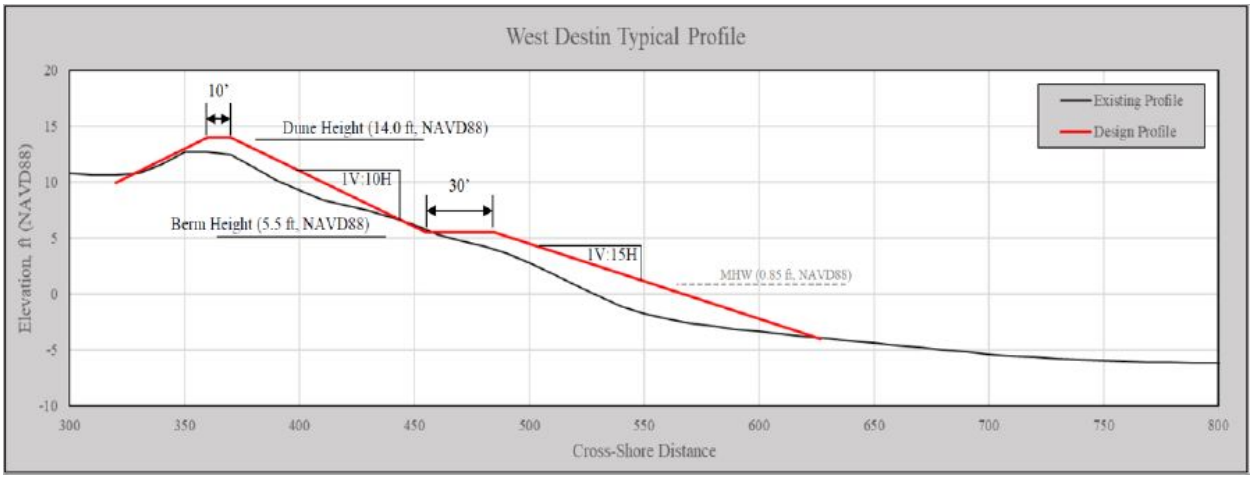


Figure 4. West Destin Existing and Design Profiles Supplied by USACE Mobile

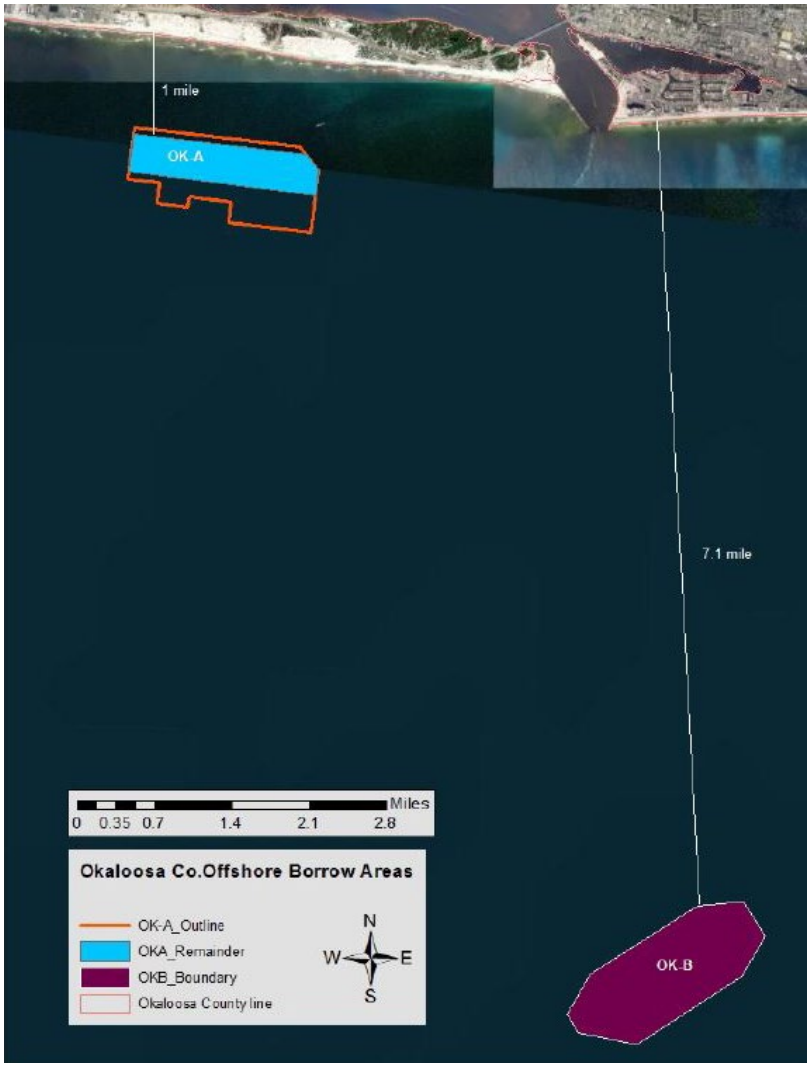


Figure 5. Satellite Image of the Offshore Borrow Sites, OKA and OKB, Supplied by USACE Mobile

Project Description

The USACE Mobile District is conducting the Okaloosa County CSRM Feasibility Study to determine if there is Federal interest in a plan to reduce damages to infrastructure as a result of flooding from storm surge, tides, and waves during coastal storms and hurricanes along the shoreline of Okaloosa County, Florida. Progress of this authorized study has led to the development of a Tentatively Selected Plan (TSP). Construction of the proposed TSP would reduce hurricane and storm damage to infrastructure along the front beach project areas and would enhance wildlife habitat along the shoreline of Okaloosa County, Florida.

The TSP for the Okaloosa CSRM Feasibility Study consists of berm and dune nourishment in the Okaloosa Island and West Destin reaches of the study area. In the Okaloosa Island reach (R-001 to R-015), the plan consists of providing a dune with a crest elevation of 14 ft and a crest width of 10 ft; and a berm with a crest width of 10 ft and a crest elevation of 5.5 ft. In the West Destin Reach (R-018 to R-032), the plan consists of providing a dune with a crest elevation of 14 ft and a crest width of 10 ft, and a berm with a crest width of 30 ft and a crest elevation of 5.5 ft.

Sand sources for the project will be dredged from two offshore borrow areas, OKA and OKB. OKA is located about 1.5 mi offshore from Okaloosa Island, Florida, and is estimated to contain adequate volume for the initial construction. It is currently permitted for use by the Non-Federal Sponsor and meets state code for sand quality for beach placement. OKB is located about 7 mi offshore from Destin, Florida. Although OKB is not currently permitted, a geotechnical survey has determined the quality of the material would meet the state code. Additional geotechnical investigation is pending along with a permit application with the Florida Department of Environmental Protection.

Approximately 1 million cubic yards (cys) of sandy material will be dredged from OKA, using either a hydraulic (hopper or cutterhead) or mechanical dredge(s) during the initial project construction. This sandy material would be placed within the identified beach template via pipeline(s) and redistributed throughout the area utilizing heavy equipment, such as bulldozers. The project footprint below the water encompasses approximately 58 acres (ac) of beach fill and approximately 700 ac from borrow area OKA. OKB includes another 806 ac and would be used for future re-nourishment events anticipated to occur every 10 years.

Construction Conditions
USACE Mobile has agreed to adhere to all Reasonable and Prudent Measures with implementing Terms and Conditions identified in the 2003 GRBO and associated 2005 and 2007 amendments.

The USACE will follow the general PDCs in the updated SARBO (2.2 of Appendix B) on the use of in-water lines, which state that all line used will be stiff, taut, and non-looping to minimize the risk of entanglement and, if flexible lines are used, they must be enclosed in plastic or rubber sleeves/tubes that add rigidity and prevent the line from looping and tangling.

Effects Determination(s) for Species the Action Agency or NMFS Believes May Be Affected by the Proposed Action

Species	ESA Listing Status[1]	Action Agency Effect Determination	NMFS Effect Determination
Fish			
Giant manta ray	T	NLAA	NLAA

Critical Habitat
The project is located in Gulf sturgeon critical habitat Unit 11, Florida Nearshore Gulf of Mexico. Western Destin and Santa Rosa Island Beach Restoration, SER-2009-02429 (issued on August 11, 2009), and City of Destin Beach Nourishment, SER-2015-16242 (issued on April 1, 2016), overlap the Okaloosa County CSRM Feasibility Study project footprint, with respect to dredging in OKA and beach placement sites on Okaloosa Island and West Destin. These previous consultations concluded that dredging and placement of dredged material were not likely to adversely affect Gulf Sturgeon critical habitat in these areas.

[1] E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect

Analysis of Potential Routes of Effects to Species
The following is based on the analysis for giant manta ray presented in the SARBO; relevant sections of the SARBO are referenced in parenthesis.

Giant manta rays may be physically injured if struck by cutterhead pipeline dredging equipment or materials. We believe this effect is extremely unlikely to occur due to the species' mobility. Giant manta ray are highly mobile and are able to avoid slow-moving cutterhead pipeline dredges as well as placement of materials from dredging. Further, we are not aware of any reported interactions with this species associated with cutterhead pipeline dredging or the placement of materials (3.1.1.4). Movement away from a stimulus is a behavioral effect and is discussed in the final paragraph of this analysis.

Giant manta rays may be injured or lethally entrained by ocean-going hopper dredge equipment or materials. We believe this effect is extremely unlikely to occur due to the species' mobility. Giant manta ray are highly mobile and are able to avoid hopper dredging equipment. Further, there have been no known reports of entrainment of this species by a hopper dredge (3.1.1.5.3). Movement away from a stimulus is a behavioral effect and is discussed in the final paragraph of this analysis.

While both recreational and commercial vessel traffic have been documented to adversely affect ESA-listed species, little information exists on vessel interactions with giant manta ray. We believe that a vessel strike with a giant manta ray is extremely unlikely to occur due to the generally slow-moving nature of dredging vessels, the project occurring in open water, and this species' mobility (3.1.4.1.3). Movement away from a stimulus is a behavioral effect and is discussed in the final paragraph of this analysis.

Giant manta ray may be affected by changes in water quality from turbidity caused by cutterhead pipeline or hopper dredging and material placement. We believe this effect is extremely unlikely to occur due to the species' mobility. Giant manta ray are highly mobile and can avoid localized areas of increased turbidity (3.1.1.3.2). Movement away from a stimulus is a behavioral effect and is discussed in the final paragraph of this analysis.

Giant manta ray may become entangled in flexible materials in the water, such as buoy lines used to mark pipelines; however, we believe entanglement from flexible materials in the water associated with dredging and placement activities is extremely unlikely to occur (3.1.2). As stated above, the USACE will follow the general PDCs in the updated SARBO on the use of in-water lines.

Giant manta ray may frequently feed in nearshore coastal waters and may be affected by their inability to access the project area due to their avoidance of dredging and placement activities. We believe the effect of temporary loss of habitat access to giant manta ray will be insignificant, given the availability of similar habitat nearby and the abundance of habitat outside of the project area (3.1.7.1.4).

The operation of dredging vessels and equipment and the placement of materials may result in behavioral effects to giant manta ray (3.1.8.3). We believe that any behavioral effects will be

temporary and insignificant. Giant manta ray is highly mobile species and will be able to avoid areas of behavioral disturbances while work is occurring and return once work is complete.

Conclusion

Because all potential project effects to listed species and critical habitat were found to be extremely unlikely to occur, insignificant, or beneficial, we conclude that the proposed action is not likely to adversely affect listed species and critical habitat under NMFS's purview. This concludes your consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action. NMFS's findings on the project's potential effects are based on the project description in this response. Any changes to the proposed action may negate the findings of this consultation and may require reinitiation of consultation with NMFS.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Dana M. Bethea, Consultation Biologist, at (727) 209-5974, or by email at Dana.Bethea@noaa.gov.

Sincerely,

SHOTTS.KELLY.MARISE.1365865457 Digitally signed by SHOTTS.KELLY.MARISE.1365865457 Date: 2021.06.24 09:23:04 -04'00'

for David Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514-22.f.4

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

Coastal Environmental Team
Planning and Environmental Division

Ms. Patricia Kelly
U.S. Fish and Wildlife Service
Panama City Field Office
1601 Balboa Avenue
Panama City, Florida 32405

Dear Ms. Kelly:

The U.S. Army Corps of Engineers (USACE), Mobile District is conducting the Okaloosa County Coastal Storm Risk Management (CSRM) Feasibility Study to determine if there is Federal interest in a plan to reduce damages to infrastructure as a result of flooding from storm surge, tides and waves during coastal storms and hurricanes along the shoreline of Okaloosa County. Progress of this authorized study has led to the development of a Tentatively Selected Plan (TSP) that will identify the study problems and meet its objectives.

PROPOSED ACTION

TSP for the Okaloosa CSRM Feasibility Study consists of berm and dune nourishment in the Okaloosa Island and West Destin reaches of the study area. In the Okaloosa Island reach (R01 – R15), the plan consists of providing a dune with a crest elevation of 14 feet and a crest width of 10 feet; and a berm with a crest width of 10 feet and a crest elevation of 5.5 feet. In West Destin reach (R18 – R32), the plan consists of providing a dune with a crest elevation of 14 feet and a crest width of 10 feet, and a berm with a crest width of 30 feet and a crest elevation of 5.5 feet. No work will occur within the Coastal Barrier Resource Areas (CBRA) units 32 and 32P on the east Destin shoreline.

Sand sources for the project will be dredged from two offshore borrow areas, Okaloosa A (OKA) and Okaloosa B (OKB). Borrow area OKA is located about 1.5 miles offshore from Okaloosa Island, and is estimated to contain adequate volume for the initial construction. It is currently permitted for use by the Non-Federal Sponsor, and meets state code for sand quality for beach placement. Borrow area OKB is located about 7 miles offshore from Destin, Florida. Although not currently permitted, a geotechnical survey was done to determine that the quality of the material would meet the state code. Additional geotechnical investigation is pending along with permit application with the Florida Department of Environmental Protection.

Details on the proposed TSP can be found in the project's Feasibility Report with Integrated Environmental Assessment (FR/EA). Enclosures depict the borrow area locations and material placement plan view along with profiles of typical placement for both Okaloosa Island and west

Destin shorelines. Approximately 1 million cubic yards (cys) of sandy material will be dredged from borrow area OKA utilizing either a hydraulic or mechanical dredge(s) during the initial project construction. This sandy material would be placed within the identified beach template via pipeline(s) and redistributed throughout the area utilizing heavy equipment, such as bulldozers. The project footprint below the water encompasses approximately 58 acres of beach fill and approximately 700 acres from borrow area OKA. Borrow area OKB includes another 806 acres and would be utilized for future renourishment events anticipated to occur every 10 years. Borrow area OKA and OKB range in water depths of 38 to 49 feet and 67 to 71 feet below NAVD88, respectively.

Construction of the proposed TSP would reduce hurricane and storm damage to infrastructure along the front beach project areas and would enhance wildlife habitat along the shoreline of Okaloosa County, Florida.

Endangered Species Act (ESA) Listed Species within the Proposed Action

ESA listed species that may occur in or adjacent to the project area were determined based on U.S. Fish and Wildlife Service (USFWS) ECOS data (https://ecos.fws.gov/ipac/) and the Federal Threatened, Endangered and Candidate Species Likely to Occur in the Florida Panhandle, compiled by USFWS, March 2017. A summary of that data is presented in enclosed Table 1.

Mobile District has determined that the proposed project is likely to adversely affect nesting sea turtles (green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), loggerhead sea turtle (*Caretta caretta*), leatherback sea turtle (*Dermochelys coriacea*), and Kemps' ridley sea turtle (*Lepidochelys kempii*)) and may affect, but is not likely to adversely affect West Indian manatee (*Trichechus manatus latirostris*), Choctawhatchee beach mouse (*Peromyscus polionotus allophrys),* piping plover (*Charadrius melodus)* and the rarely occurring red knot. Except for West Indian manatee, piping plover, and red knot, these species are covered under the Statewide Programmatic Biological Opinion (SPBO, 2015). No USFWS designated species Critical Habitat occurs in the project area, although Choctawhatchee beach mouse mapped unit CBM 1 is directly east of West Destin project limit between Reach 32 and 33; see attached exhibit.

The project will have no effect on Gulf coast lupine (*Lupinus westianus*) and Cruise's goldenaster (*Chrysopsis gossypina cruseana*) as these species are not vouchered to be present in Okaloosa County (Atlas of Florida Vascular Plants, ISB, USF). The endangered perforate reindeer lichen (*Cladonia perforata)* is known to occur on Okaloosa Island on adjacent Eglin Air Force Base managed lands, and although unlikely to be present within the proposed project area, activities may affect, but are not likely to adversely affect this species should it occur in the project area. The newly petitioned Gulf coast solitary bee (*Hesperapsis oracria)* is not known to be present in the project area; however, its host plant, the narrow-leafed honeycombhead (*Balduina angustifolia*) occurs on dunes along the Okaloosa County coastline (Atlas of Florida Vascular Plants, ISB USF, 2020). The proposed project will have no effect to this insect.

West Indian manatees typically migrate through the Choctawhatchee Bay during the warmer months consuming any aquatic vegetation available to them. Although there would be a low probability of manatee occurrence on the shoreline of the oceanfront within the project area, the use of Standard Manatee Protection Conditions, as developed by USFWS and Florida Fish and Wildlife Conservation Commission (FWC) guidance will be implemented during dredging operations. Therefore, the proposed action is not likely to adversely affect manatees.

Small populations of red knot occur along shoreline in the panhandle counties of northern Florida, but sightings of this species are inconsistent, and rarely observed in Okaloosa County. USACE, Mobile District has determined the project may affect, but is not likely adversely affect red knot.

Piping plover are known to occur on beachfront and intertidal flats along Okaloosa County shoreline during their wintering migratory period that generally runs from August to May in the northern Gulf of Mexico Coast. Although piping plover has been sighted on coastal beaches within the study area, no USFWS designated critical habitat exists along the shoreline in the County. Piping plover are not covered in SPBO (2015). Likewise, piping plover occurring in USFWS PCFO area are not covered in the Piping Plover Programmatic Biological Opinion (2013). Therefore, consultation of this species must be conducted on a specific case basis. Based on previous coordination with FWC and USFWS, conservation measures associated with the protection of Piping plovers have been incorporated into the project. These include surveys for Piping plovers for construction during February and April and the designation of buffer zones around areas where Piping plovers occur. Through shorebird management measures using USFWS and FWC guidance for shorebirds, USACE, Mobile District has determined the project may affect, but is not likely adversely affect piping plover.

Two aforementioned BOs were issued for areas that occur with Okaloosa County CSRM proposed project area in response to a Federal Corps Permit (SAJ-2008-03595). This action had also included another coastal project, the West Destin Beach Restoration. However, the two projects were split apart, and a stand-alone BO was issued for the West Destin beach project. The two BOs addressed piping plover which are not covered under any programmatic BO and included Conservation Measures to address local projects that occur within the TSP. Although those two BOs had identified specific conservation measures, such as land acquisition and other beach management measures, USACE, Mobile District is unable to accept those conditions as they extend beyond our jurisdictional authority.

FWCAR Combined Action

Personal communication between USFWS and USACE discussed combining the Fish and Wildlife Coordination Act (FWCAR) and ESA Section 7 consultation in order to more efficiently address conservation issues and regulatory compliance of these two laws. USFWS continues to coordinate and consult with USACE through National Environmental Policy Act (NEPA) and the ESA in which impacts to fish and wildlife resources will be adequately addressed via these two authorities. USFWS will include comments specifically identified as relevant to FWCA in the USFWS' response to USACEs' ESA coordination.

Mobile District requests to utilize Okaloosa County CSRM Feasibility Study NEPA review and ESA consultation processes to complete coordination responsibilities under the FWCA. This combined effort will avoid duplicate analysis and documentation as authorized under 40 CFR section 1500.4 (k), 1502.25, 1506.4, and is consistent with Presidential Executive Order for Improving Regulation and Regulatory Review, released January 18, 2011.

USACE, Mobile District requests your concurrence with our determination with respect to ESA Section 7 for the proposed action of the Okaloosa County CSRM Study. Should you require any further assistance, please contact Ms. Kathleen McConnell, Biologist, via email at kathleen.k.mcconnell@usace.army.mil or via phone at (251) 694-3804.

Sincerely,

JACOBSON.JENNIFER.L.1230598386 Digitally signed by JACOBSON.JENNIFER.L.1230598386 Date: 2020.12.16 17:08:02 -06'00'

Jennifer L. Jacobson
Chief, Environment and Resources Branch

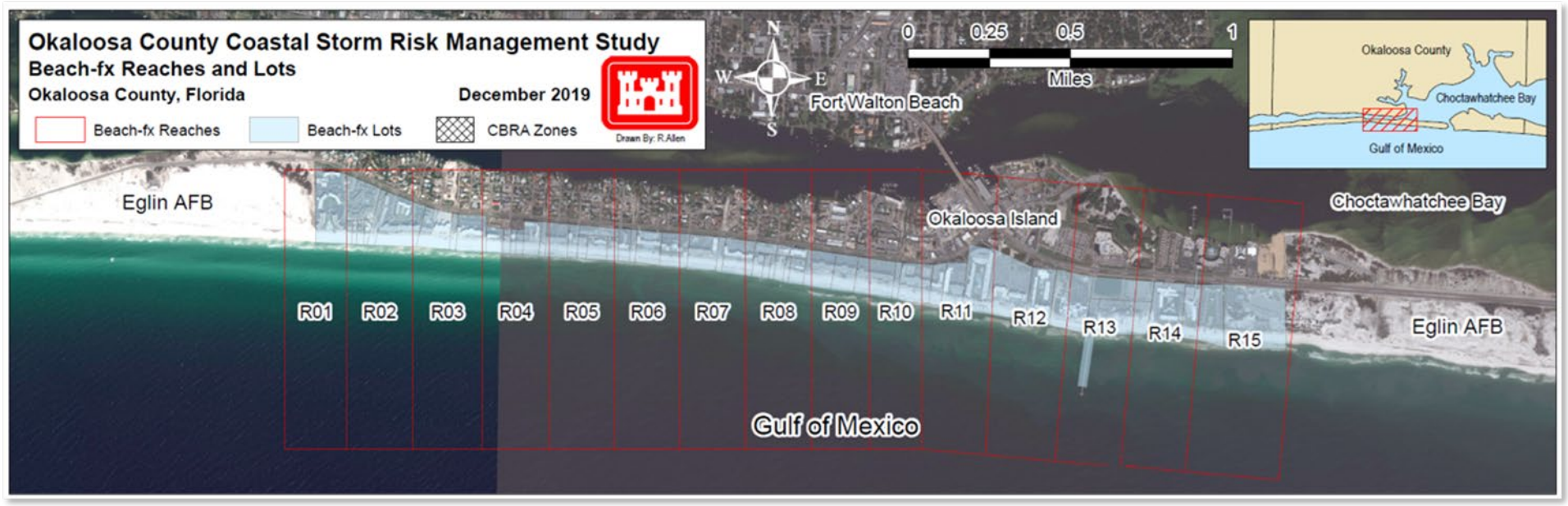
Enclosures

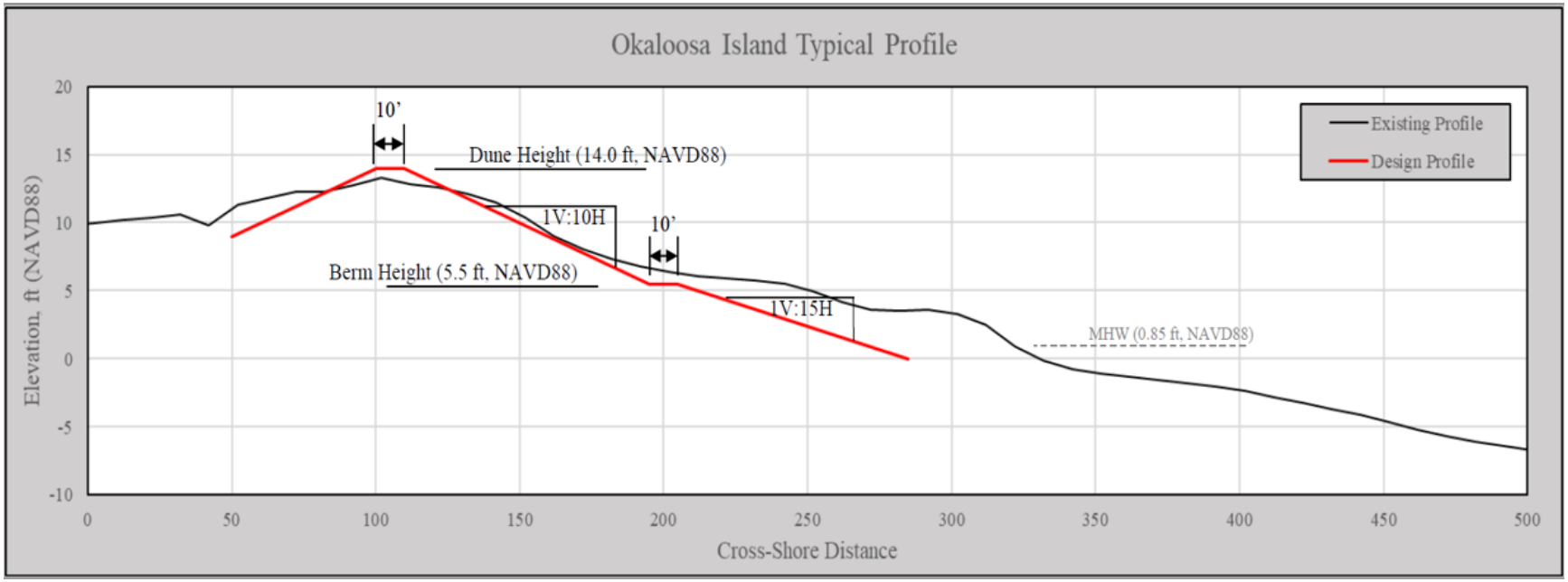
TABLE 1. Common/ *Scientific* Name	Status[1]	Biological Opinion/ Regulatory Act	In Project Area[2]
Fish			
Gulf sturgeon *Acipensor oxyrinchus desoti*	T (CH)		Yes, Marine only; No inland waters
Reptiles			
Atlantic loggerhead turtle *Caretta caretta*	T (No CH in Project area)	SPBO/GRBO	Yes
Leatherback turtle *Dermochelys coriacea*	E	SPBO/GRBO	Yes
Kemp's ridley *Lepidochelys kempi*	E	SPBO/GRBO	Yes
Green sea turtle *Chelonia mydas mydas*	E	SPBO/GRBO	Yes
Hawksbill turtle *Eretmochelys imbricata imbricata*	E	SPBO/GRBO	Yes
Birds			
Piping plover *Charadrius melodus*	T (No CH in Study area)	P3BO (except PCFO)	Yes
Red knot *Calidris canutus rufus*	T		Not in range (USFWS ECOS data)
Mammals			
West Indian (FL) manatee *Trichechus manatus floridanus*	T (No CH in Study area)		Yes
Choctawhatchee beach mouse *Peromyscus polionotus allophrys*	E (CH)	SPBO	Yes
Plants			
Gulf coast lupine *Lupinus westianus*	SSC or Not listed		Unlikely Not vouchered in Okaloosa Co (ISB)
Cruise's goldenaster *Chrysopsis gossypina cruseana*	SSC or Not listed		Unlikely Not vouchered in Okaloosa Co (ISB)
Lichen			
Perforate reindeer lichen *Cladonia perforata*	E		Yes, but unknown to occur in the project area
Insect			
Gulf Coast Solitary Bee *Hesperapsis oracria*	P		Unknown

[1] E= Endangered, T= Threatened, SSC = Species of special concern, P = Petitioned; CH = Critical Habitat designation;

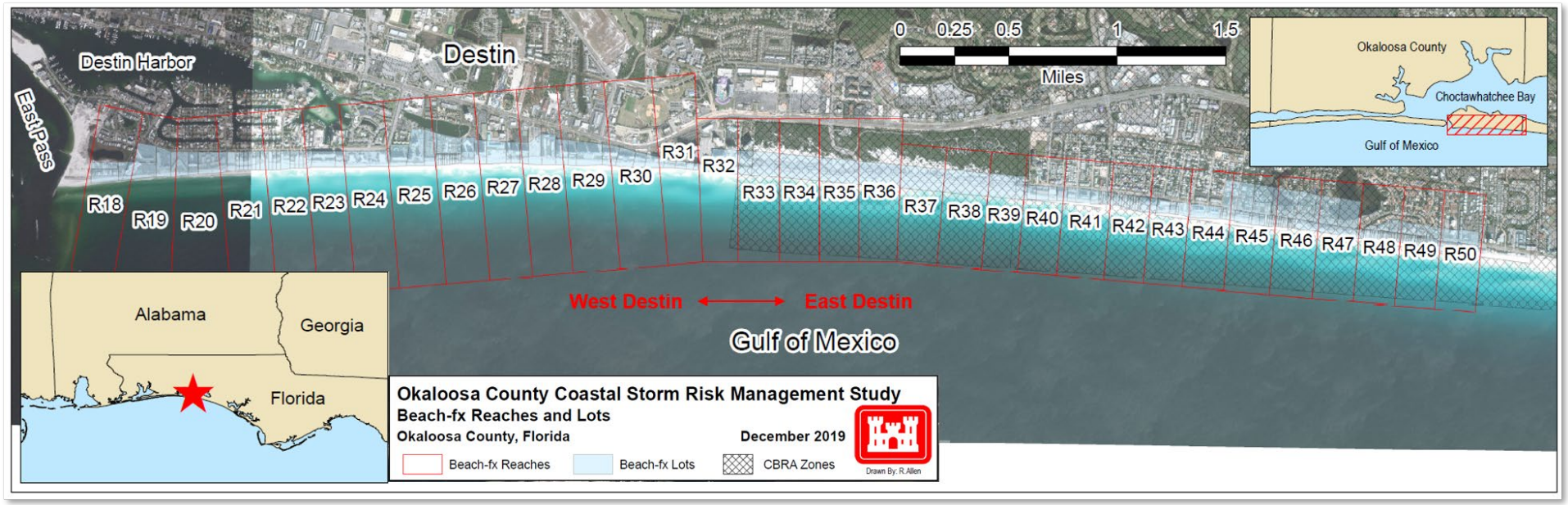
[2] ESA Section 7 consultation will include species that may occur within the proposed Project Area based on USFWS ECOS data. Those that may occur within the Study Area but not within the proposed Project Area will be excluded from further ESA review.

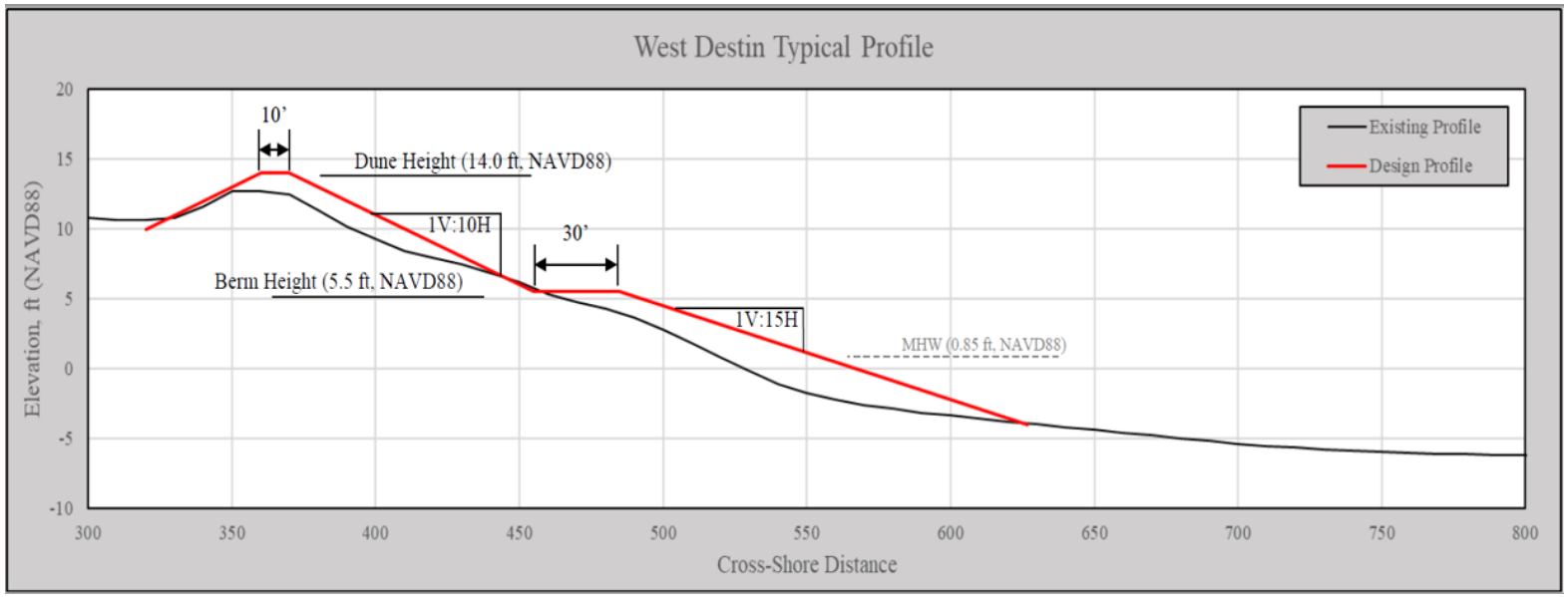
Okaloosa County CSRM Okaloosa Island TSP



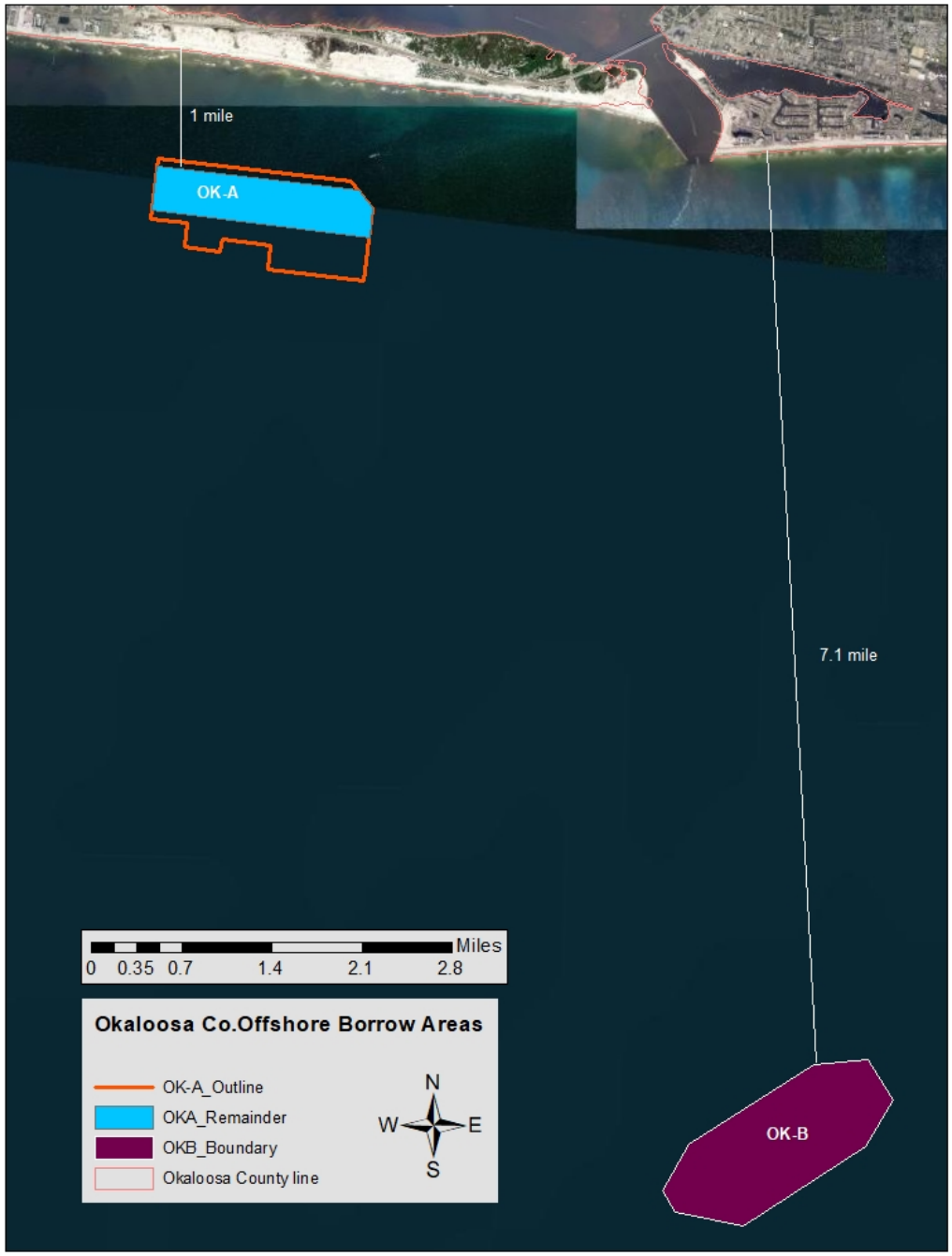


Okaloosa County CSRM West Destin TSP





Okaloosa County CSRM Borrow Areas for Proposed Action TSP



Coastal Storm Risk Management
Feasibility Project
Okaloosa County, Florida

Final

ESA Consultation
and
Fish and Wildlife Coordination Act Report

Submitted to:
Mobile District
U.S. Army Corps of Engineers
Mobile, Alabama

Prepared by:
United States Fish and Wildlife Service
Florida Ecological Services Office
Panama City, Florida

July 17, 2021

Written by Patty P. Kelly, Coastal Biologist, patricia_kelly@fws.gov
Approved and Signed by:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Florida Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405

Tel: (850) 769-0552
Fax: (850) 763-2177

July 17, 2021

Ms. Jennifer Jacobson, Chief
Coastal Environmental Team
Planning and Environmental Division
Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

RE: FWS LogNo. 04EF3000-2021-F-0446
Agency: U.S. Army Corps of Engineers
Title: Okaloosa County RP
Initial Consults: FWS #2009-F-0096 and
FWS #2018-0151

Dear Ms. Jacobson,

This letter is the response to the U.S. Army Corps of Engineers (Corps), Mobile District's letter initiating formal consultation with the U.S. Fish and Wildlife Service (Service) via e-mail on January 6, 2021. The supporting environmental assessment arrived via e-mail on January 15, 2001. The Corps requests formal consultation for their Okaloosa County, Florida, Coastal Storm Risk Management (CSRM) Feasibility project.

The Okaloosa County, Florida Coastal Storm Risk Management (CSRM) Feasibility project was recommended by Emergency Supplemental funding after a series of hurricanes affected the US Army Corps of Engineers South Atlantic Division (SAD) and Gulf Coast States in 2017. The purpose is to determine the extent of coastal storm related damages to areas impacted by Hurricanes Harvey, Irma, and Maria and to report on improvements for CSRM along the Okaloosa County, Florida coastline.

The Corps determined that the Recommended Plan (RP) is not likely to adversely affect the West Indian manatee (*Trichechus manatus latirotris*), Choctawhatchee beach mouse (*Peromyscus polionotus allophrys*), piping plover (*Charadrius melodus*) red knot (*Calidris canutus rufa*) nor

perforate reindeer lichen (*Cladonia perforate*). The Corps has determined that the RP is likely to adversely affect nesting sea turtles (Green sea turtles (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), loggerhead sea turtle (*Caretta caretta*), leather back sea turtle (*Dermochelys coriacea*), and Kemps' ridley sea turtle (*Lepidochelys kempii*). This response is provided in accordance with provisions of section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended: 16 U.S.C. 661 et seq.).

DESCRIPTION OF THE PROJECT AREA

The beaches of Okaloosa County, Florida encompass approximately 26 miles of shoreline extending from the Santa Rosa/western-Okaloosa County line, to the Okaloosa/western-Walton County line (Figure 1). The shoreline is interrupted by Destin (East) Pass, an inlet, and situated west of the City of Destin. It connects the Gulf of Mexico (GOM) to Choctawhatchee Bay.

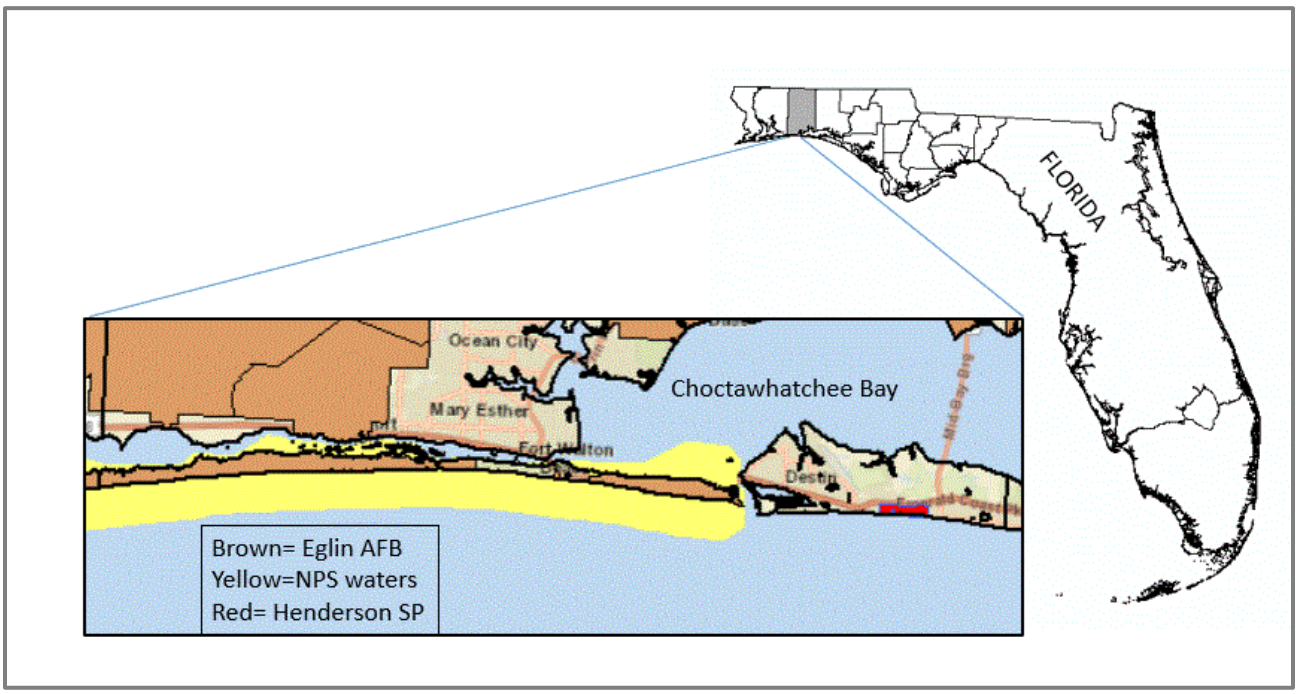


Figure 1. Okaloosa County is comprised of federal, state, and private lands.

The western part of coastal Okaloosa County is comprised of Okaloosa Island, a barrier island system. Approximately 14 miles of the island is owned and managed by Eglin Air Force Base (EAFB) (Figure 1; brown polygon) and excluded from the project. Choctawhatchee Bay and GOM waters adjacent and surrounding Santa Rosa Island are under Gulf Islands National Seashore jurisdiction (Figure1; yellow polygon). The western leg of this project, referred to as the Okaloosa Project, is a 3.2 miles section between coastal monument range markers 1-15, and is sandwiched by EAFB property (Figure 1, 2). The second project, referred to as the West Destin Project, is between coastal monument range markers 18-32, approximately 3.0 miles of the RP, occurs almost adjacent and east of East Pass (Figure 1, 2). The eastern-most section of the project area is densely developed and built upon a thick barrier island spit and peninsula that is up to two miles wide, south

to north, before reaching Choctawhatchee Bay. East of the City of Destin, is Henderson State Park which covers 1.25 linear shoreline miles (Figure 1; red polygon) but is excluded from the project.

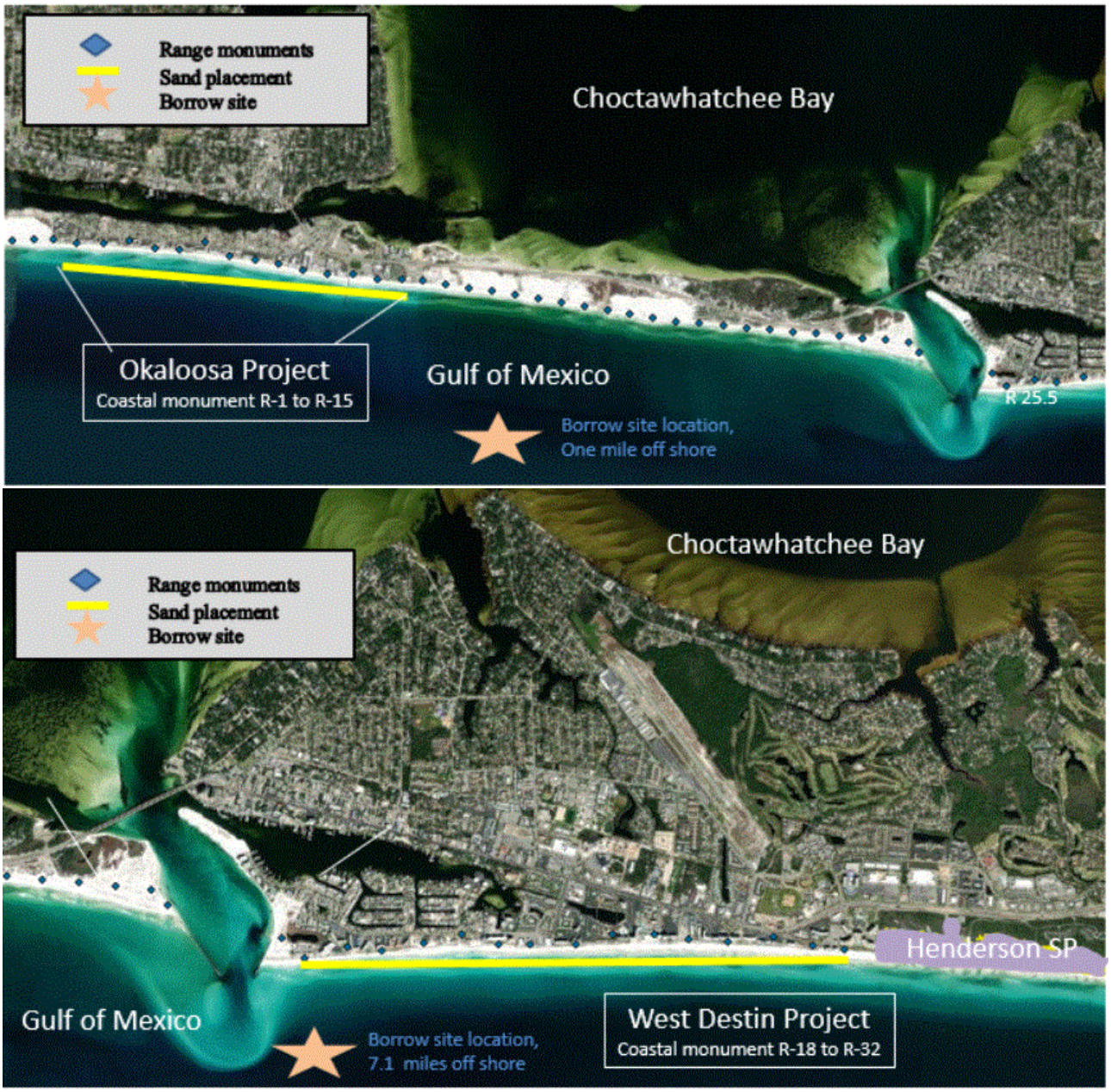


Figure 2. Location of the Recommended Plan within Okaloosa County, Florida,

PROJECT DESCRIPTION (taken from the Corps Draft Environmental Assessment—Corps 2021)

The Recommended Plan (RP) for the Okaloosa County Coastal Storm Risk Management (OCCSRM) Feasibility Study consists of berm and dune nourishment along the shoreline of Okaloosa County in two areas (Figure 2):

1) Okaloosa Island, 17,000 feet (approximately 3.2 miles) reach, will consist of providing a dune with a crest elevation of 14 feet, NAVD88, with a crest width of 10 feet with a side-slope of 5 horizontal (H) on 1 vertical (V), and a berm with a crest elevation of 5.5 feet, NAVD 88, with a berm crest width of 10 feet with a fore slope of 15 H on 1V. The initial nourishment will require about 101,000 cubic yards of fill material.

2) West Destin, 16,000 feet (approximately 3.0 miles) reach, the plan consists of providing a dune with a crest elevation of 14 feet, NAVD88, with a crest width of 10 feet with a side-slope of 5H on 1V, and a berm with a crest elevation of 5.5 feet, NAVD88, with a berm crest width of 30 feet with a fore slope of 15 H on 1 V. The initial nourishment in this area will require about 426,000 cubic yards of fill material.

During the 50- year life of the project, the Corps predict that the project will require periodic renourishment. Four renourishments will occur on a 10- year cycle and require about 10.5 million cubic yards of material for the Recommended Plan. Material for the initial fill placement and renourishments will come from a nearby offshore borrow area permitted by the state of Florida Department of Environmental Protection (FDEP). FDEP confirmed that the material is suitable for placement on the Okaloosa County shoreline.

Conservation Measures

The Corps provides the following Conservation Measures for species that infrequently use the Project Site. Corps commits to piping plover surveys during construction between the months of February through April. They commit to designation of a buffer zone around areas where piping plover occur or where found during their surveys. The Corps commits to use of the Standard Manatee Protection Conditions as developed by the Service and the Florida Fish and Wildlife Conservation Commission.

The known occurrences of piping plovers largely occur on the bayside habitat along EAFB's shoreline. Optimal habitats are also found west and adjacent East Pass's Inlet, and are also under EAFB ownership. The lagoon feature east of the jetty structure historically would have been suitable but dense vegetation reduces the likelihood of its use. The intertidal GOM shoreline within the RP provides suitable habitat but this area is not considered "optimal" habitat. Protection of the wrack line, post project, increases the likelihood of use depending on human disturbance factors. Impacts to the invertebrates that provide foraging habitat within the intertidal zone from sand placement projects are believed temporary in nature. Differing reports and locations state invertebrate recovery takes anywhere from 6 to 18 months. Nourishment events are expected to occur once every 10 years. The Corps proposes surveys for piping plover from February to April. We clarify that piping plovers occur in Florida between July 15 through May 15 but since optimal habitat features are not included in the RP, no surveys are necessary. Red knots are only infrequently reported in Okaloosa County. Wrack protection is important for most shorebird species and beach mice. The local sponsors (Corps consultations in 2018) have committed to wrack protection post project, enforcing dog prohibitions on the beach, and posting and roping dune features seaward of the dune toe. Given these considerations, implementation of the committed

Conservation Measures, the Service concurs with the Corps determination that the Recommended Plan (RP) is not likely to adversely affect the red knot or piping plover.

The Service concurs with the Corps determination of not likely to adversely affect the West Indian manatee based upon their commitment to use the standard Manatee Conditions for In-Water work.

Choctawhatchee beach mice historically occurred from East Pass (Destin) and east to Bay County. Within the RP, Henderson Beach State park (HSP) is designated critical habitat and is occupied by the beach mouse. Given the proximity of the Recommended Plan to HSP and habitat features (vegetated sand), the Service requests that the Corps follow the Terms and Conditions within the Statewide Programmatic Biological Opinion (SPBO) (Service 2015) when applicable to RP actions that overlap into habitat potentially used by the CBM, namely revegetating any access points, post-project.

The Service concurs with the Corps determination of likely to adversely affect (LAA) for loggerhead, green, leatherback, and Kemp's ridley nesting sea turtles. The Service has determined that the proposed project is appropriate to apply to the Statewide Programmatic Biological Opinion (SPBO)(Service 2015) concerning sand placement activities along the coast of Florida for the Corps (FWS Log No. 41910-2011-F-0170, revised 2015 version). The minimization measures, Reasonable and Prudent Measures, and Terms and Conditions in the SPBO are applicable to the proposed project and must be followed for loggerhead, green, leatherback and Kemp's ridley nesting sea turtles. We have assigned FWS log number 04EF3000-2021-F-0446 to this individual consultation.

REINITIATION NOTICE

This concludes formal consultation on the proposed action. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take shall cease pending reinitiation. Given the 10 year frequency expected for this 50-year project, we recommend the Corps reinitiate for each proposed event.

FISH AND WILDLIFE COORDINATION ACT REPORT

The authority for this study is contained in House Resolution 2758 adopted June 28, 2006 which reads as follows:

> "Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, in accordance with Section 110 of the Rivers and Harbors Act of 1962, the Secretary of the Army is requested to review the feasibility of providing shoreline

erosion control, beach nourishment, storm damage reduction, **environmental restoration and protection**, and related improvements in Okaloosa County, Florida, taking into consideration the unique characteristics of the existing beach sand and the need to develop a comprehensive body of knowledge, information, and data on coastal area changes and processes as well as impacts from federally constructed projects in the vicinity of Okaloosa County, Florida.

A draft Okaloosa County, Florida, Coastal Storm Risk Management Integrated Feasibility Study and Environmental Assessment was prepared by the U.S. Army Corps of Engineers (Corps) in January 2021 (Corps 2021). In addition to storm damage protection, the proposed action is stated to provide **environmental restoration and protection opportunities** (House Resolution 2758, 2006). Such an action could provide restoration opportunities to valuable dune and beach habitat supporting general beach ecosystem functions. Restoring the beach habitat that historically supported a variety of associated flora and fauna that naturally occur in the immediate vicinity could provide continued sustainability to the fragile ecosystems that existed in the area. With development on or adjacent to coastal areas future conditions associated with not restoring the beach and dune system would result in the continued absence of a valuable beach ecosystem and loss of these types of habitats and associated benefits.

FISH AND WILDLIFE RESOURCES

Florida has over 825 miles of sandy beaches; 26 of those miles occur along the Gulf of Mexico GOM shoreline in Okaloosa County. The Corps proposed project includes 6.2 miles or 23% of the County's shoreline. While the project is centered on the sandy beach, the beach is part of the coastal ecosystem that includes the nearshore, swash zone (wet and dry beachface), foredunes, primary, secondary, and scrub dunes, interdunal swales, coastal dune lakes, and offshore borrow sites. Collectively these coastal ecosystems are dynamic and experience erosional and accrectional fluctuations from sedimentary exchange between dune, beach, and offshore sand sources.

The exposed sandy beach portion of the ecosystem is physically dynamic, inhabited by specialized biotic assemblages that are structured mainly by physical forces (Defeo and McLachlan 2005). The beach is in a constant state of flux, accreting and eroding in response to waves, currents, winds, storms, and sea-level change. A natural beach represents a productive habitat supporting dense concentrations of benthic invertebrates that feed surf fish, resident and migrating shorebirds, and the nesting of sea turtles (Brown and McLachlan 1990). The intertidal areas of beaches provide habitats for a diversity of fauna. The environment between the grains of sand harbors interstitial organisms (bacteria, protozoans, microalgae and meiofauna), forming a distinct food web. Larger macrobenthic invertebrates burrow actively and include representatives of many phyla, but crustaceans, mollusks and polychaete worms are usually dominant and encompass predators, scavengers, and filter and deposit feeders. Most beach species are found in no other environment, their unique adaptations for life in these dynamic systems include: mobility, burrowing ability, protective exoskeletons, rhythmic behavior, orientation mechanisms and behavioral plasticity (Chelazzi and Vannini 1988; Scapini et al. 1995; Brown 1996; Scapini 2006).

The most distinctive feature of coastal dunes is their border with the sea and landward migration and the resultant physical, chemical and vegetation gradients that are more biologically than

physically structured (McLachlan 1991). They have well drained sands, subject to desiccating effects of salt spray and low nutrients (van Heerdt & Morzer Bruyns 1960; Callan 1964; Skiba & Wainwright 1984). They are, however, relatively well supplied with moisture because of their location adjacent to the ocean and exhibit more predictable and moderate conditions. Coastal dunes are not marked by pulses, although, wrack inputs from the sea may be erratic following storms, and rainfall may be seasonal. Rather they have more constant climates and organic inputs, and often exhibit marked succession in their vegetation (Noy-Meir 1980). The ultimate control of the gradient across coastal dunes and the resulting vegetation succession is by wind. By its strength, frequency and prevailing direction, especially in terms of the land/sea interface, it controls (1) sand movement, (2) dune forms, (3) microclimate, (4) seed and detritus dispersal, and (5) salt spray load and the form of the gradient inland from the beach, thereby influencing both vegetation and fauna. Vegetation within the project area consists of sea oats in the lower elevation dunes. Other vegetation includes panic grass, morning glory, railroad vine, sand spur, and other grasses and sedges. Higher elevation dune contains additional species such as scrub oaks, briers, saw palmetto, rosemary, lupine, goldenrod, salt bush, and groundsel tree.

Beaches, swash zone, and dunes are closely linked through the storage, transport and exchange of sand. Sand transport, driven by waves on the wet side and wind on the dry side, is highest in exposed surf zones, whereas sand storage is often greatest in well-developed dunes. Sand tends to move rapidly seawards across the beach and surf zone during storms and to return more slowly landwards during calm periods (Short 1999; Nordstrom 2000). Besides sediment, climatic interactions and moisture, three materials are exchanged across the dune/ beach interface: (1) groundwater; (2) salt spray; and (3) living and dead organic materials (McLachlan 1988). Animals from both habitats move across the dune/beach interface to feed.

The beach and dune ecological community provides a wide range of ecosystem services, many of which are essential to support human uses of sandy coasts. The most important ecosystem services include: (1) sediment storage and transport; (2) wave dissipation and associated buffering against extreme events (storms); (3) dynamic response to sea-level rise (within limits); (4) breakdown of organic materials and pollutants; (5) water filtration and purification; (6) nutrient mineralization and recycling; (7) water storage in dune aquifers and groundwater discharge through beaches; (8) maintenance of biodiversity and genetic resources; (9) nursery areas for juvenile fishes; (10) nesting sites for turtles and shorebirds, and rookeries for pinnipeds; (11) prey resources for resident and migratory birds and terrestrial wildlife; (12) scenic vistas and recreational opportunities; (13) bait and food organisms; and (14) functional links between terrestrial and marine environments in the coastal zone.

SPECIES AT RISK

Solitary Bee

The project occurs within the range of the solitary bee (*Hesperapis oraria*) (**Figure 3**). The Service was petitioned to list this species in 2020, and currently work with researchers to monitor its status to determine if it warrants protection under the federal Endangered Species Act. Very little is known of the biology and population size of this species. What is known is that it has only been found in coastal regions in older occurring, secondary dune systems. The bee seems obligated to

collecting pollen mostly from one species of plant, the coastal plain honeycombhead (*Balduina angustifolia*) (Cane 1995).

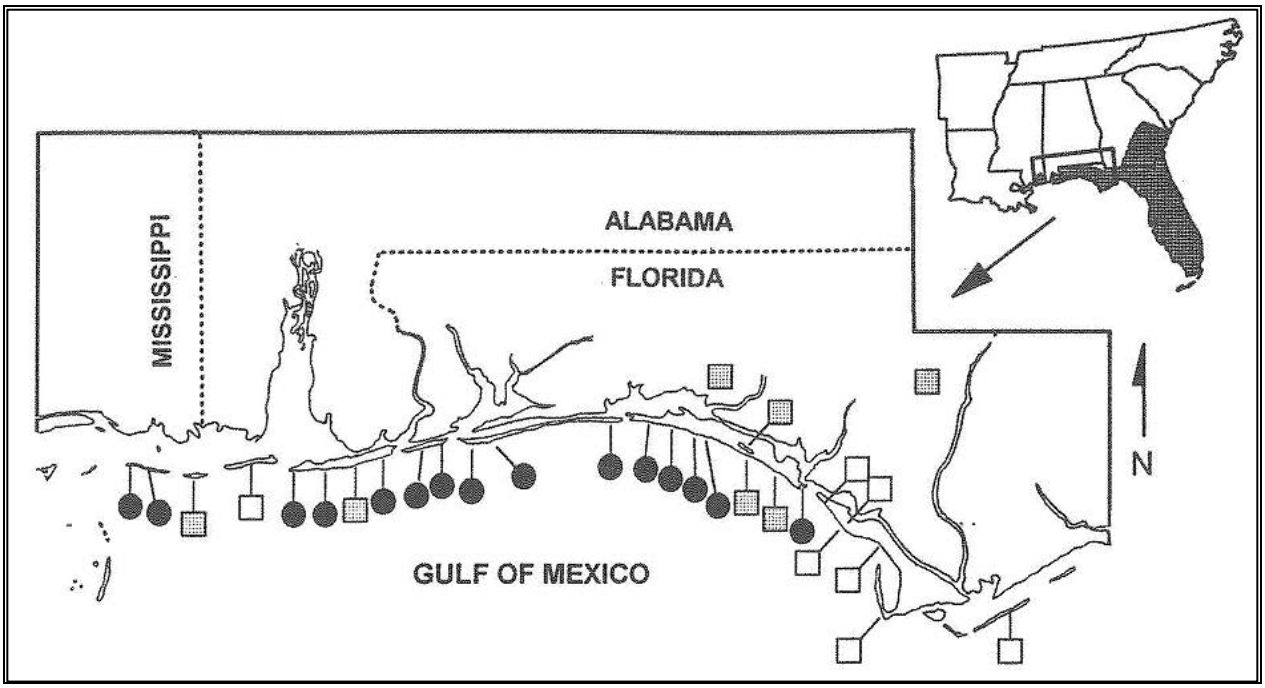


Figure 3. Map of the northern coast of the Gulf of Mexico. Adult *H. oraria* and its floral host were found at sites marked with solid black circles. Sites with blooming *B. angustifolia* that lacked *H.oraria* are marked with shaded squares. Seemingly suitable dune habitats that lacked both the bee and its floral host are marked with unshaded squares. The range of *B. angustifolia* is shaded on the inset map (Cane et al. 1996) which shows that presence of the plant is not the limiting factor.

Nesting Shorebirds and Waterbirds, Migratory Birds

See section 3.2.13 Protected Shorebirds section located within the Corps" Okaloosa County, Florida, Coastal Storm Risk Management, Integrated Feasibility Study and Environmental Assessment, Draft. January 2021.

FEDERALLY LISTED SPECIES

Sea Turtles

Four species of sea turtle occur in the waters of the Gulf of Mexico offshore of Okaloosa County, Florida: loggerhead, green, leatherback, and Kemp's ridley sea turtles. All four species are federally listed and have been documented to nest on the beaches in Okaloosa County.
The production of the next generation of sea turtles results from a synergism of the effects of the ecological conditions in the foraging area on the energetics of the female and of the beach environmental conditions on development of the embryos. To be successful, reproduction must occur when environmental conditions support adult activity (e.g., sufficient quality and quantity of food in the foraging area, suitable beach structure for digging, nearby inter-nesting habitat) (Georges et al. 1993). The environmental conditions of the nesting beach must favor embryonic

development and survival (i.e., modest temperature fluctuation, low salinity, high humidity, well drained, well aerated) (Mortimer 1990, 1995). Additionally, the hatchlings must emerge to onshore and offshore conditions that enhance their chance of survival (e.g., less than 100% depredation, appropriate offshore currents for dispersal) (Georges et al. 1993).

Loggerheads nest on ocean beaches and occasionally on inlet, bay, or estuarine shorelines with suitable sand. Nests are typically laid between the high tide line and the dune front (Routa 1968, Witherington 1986; Hailman and Elowson 1992). Wood and Bjorndal (2000) evaluated four environmental factors (slope, temperature, moisture, and salinity) and found that slope had the greatest influence on loggerhead nest-site selection on a beach in Florida. Loggerheads appear to prefer relatively narrow, steeply sloped, coarse-grained beaches, although nearshore contours may also play a role in nesting beach site selection (Provancha and Ehrhart 1987). A review of nest site selection studies found no consistency among factors analyzed and preference exhibited by loggerhead females for particular nest locations (Miller et al. 2003).

The Service's Statewide Programmatic Biological Opinion (SPBO) transmitted to the Corps for sand placement activities in Florida thoroughly evaluates the effects on nesting sea turtles. We therefore have not reiterated those effects within this document.

Choctawhatchee Beach Mouse

The Choctawhatchee beach mouse (CBM) is one of seven extant subspecies of the oldfield mouse (*P. polionotus*) that occur on barrier islands and other coastal areas of Florida and Alabama (an eighth subspecies is extinct). The CBM was listed as endangered in 1985, and critical habitat was designated in 1987 and revised in 2006. This subspecies is also listed as endangered by the FWC. The historic range of the CBM extended 53 miles between the East Pass (Destin), Choctawhatchee Bay in Okaloosa County and East Pass in St. Andrew Bay, Bay County in Florida (50 FR 23872). Habitat loss and fragmentation associated with residential and commercial real estate development has reduced the distribution of the CBM to a portion of its historic range, and is the primary threat contributing to the endangered status of beach mice (Holler 1992). CBM now occur in five disjunct populations between Choctawhatchee Bay and St. Andrew Bay (Henderson State Park (via reintroduction), Topsail Hill Preserve State Park, Shell Island, Grayton Beach State Park, and West Crooked Island). CBM occur within, adjacent to, and outside the Park boundaries.

Much of the historic range of CBM has been heavily developed. Approximately 2,500 acres of CBM habitat currently exists. While approximately 96 percent of the subspecies' remaining habitat is public land, due to storm events and increasing recreational pressure on public lands, the quality and protection of this habitat may be threatened. Maintaining habitat on private lands continues to be imperative to preserve connectivity and allow for beach mouse population expansion from and between public lands.

The effects of the habitat impact from hurricanes, subsequent post-storm response activities, and shoreline erosion continue, resulting in slow habitat recovery. This continues to depress beach mouse population numbers. Based on this, we would anticipate that CBM are found in suitable habitat but in reduced numbers throughout Okaloosa County. Areas with recovering or intact dune

habitat remain especially important habitat for the CBM. While the current status of CBM is unknown, their general distribution is known.

The Service's Statewide Programmatic Biological Opinion (SPBO) transmitted to the Corps for sand placement activities in Florida thoroughly evaluates the effects on endangered beach mice. We therefore have not reiterated those effects within this document.

Piping Plover

The piping plover is a small, pale sand-colored shorebird, about seven inches long with a wingspan of about 15 inches (Palmer 1967). On January 10, 1986, the piping plover was listed as endangered in the Great Lakes watershed and threatened elsewhere within its range, including migratory routes outside of the Great Lakes watershed and wintering grounds (50 FR 50726). Piping plovers were listed principally because of habitat destruction and degradation, predation, and human disturbance. Protection of the species under the Act reflects the species' precarious status range-wide. Three separate breeding populations have been identified, each with its own recovery criteria: the northern Great Plains (threatened), the Great Lakes (endangered), and the Atlantic Coast (threatened). The piping plover winters in coastal areas of the U.S. from North Carolina to Texas, and along the coast of eastern Mexico and on Caribbean islands from Barbados to Cuba and the Bahamas (Haig and Elliott-Smith 2004). Information from observation of color-banded piping plovers indicates that the winter ranges of the breeding populations overlap to a degree.

Plovers depart their breeding grounds for their wintering grounds from July through late August, but southward migration extends through November. Piping plovers use habitats throughout the Florida coast, including the northwestern Florida coast, from July 15 through May 15. Both spring and fall migration routes of Atlantic Coast breeders are believed to occur primarily within a narrow zone along the Atlantic Coast (Service 1996). Some mid-continent breeders travel up or down the Atlantic Coast before or after their overland movements (Stucker and Cuthbert 2006). Use of inland stopovers during migration is also documented (Pompei and Cuthbert 2004). Migration stress may substantially affect survival rates of this species (Hecht 2006). Winter ranges of the breeding populations overlap to a significant degree. Confirmed sightings from all three breeding populations have been documented in northwest Florida. In addition, this species exhibits a high degree of intra- and inter-annual wintering site fidelity (Nicholls and Baldassarre 1990; Drake et al. 2001; Noel et al. 2005; Stucker and Cuthbert 2006).

The number of migrating or wintering piping plover within Okaloosa County is difficult to assess. Regular surveys have not been conducted at optimal habitat locations for non-breeding (including migrating and overwintering) plovers within this area. Surveyors reported no piping plovers in the project area during either the 2001 or 2006 International Piping Plover Census, a one day winter survey (Ferland and Haig 2002; Elliott-Smith et al. 2009).

COASTAL BARRIER RESOURCES ACT (CBRA)

The Corps Integrated Feasibility Study and Environmental Assessment (Corps 2021) summarize the CBRA. The RP has been modified to avoid all Coastal Barrier Resource Units to stay in compliance with CBRA.

POTENTIAL IMPACTS TO FISH AND WILDLIFE RESOURCES

Coastal counties within the U.S. occupy a land area of approximately 888 thousand square miles, 262 thousand square miles of which represents counties that bound the Atlantic Ocean and Gulf of Mexico. Since 1960, the population in the Atlantic Ocean and Gulf of Mexico has increased by 45 percent. In 1960, an average of 204 people was living on each square mile of coastal land in the counties bordering the Atlantic and Gulf coastlines. By 2000, this density increased to 296 persons per square mile. By contrast, in 2000 the average population per square mile nationally equaled 80 persons per square mile. The population density along the Atlantic Ocean and Gulf of Mexico coastal counties is almost four times higher than the national population density (NOAA Coastal Services Center 2010).

Florida's beaches provide recreational and aesthetic value to residents of the State and attract millions of national and international tourists each year. An estimated $1 trillion of coastal property in Florida contributes to the tax base of local governments (FDCA 2006). In 2018, 124 million tourists visited Florida. In 2017, Florida visitors spend nearly $90 billion – the vast majority (63.4%) of which was spent within coastal counties (UCF 2021).

Artificial beach nourishment, commonly referred to as beach nourishment or restoration, is the mechanical placement of sand on a beach to advance the shoreline seaward or to build up a dune (Dean 2002). Nourishment has become the dominant shoreline protection alternative in Florida since the 1980s. Property owners like that it protects their property, tourists enjoy large beaches, and some proponents of environmental protection believe it is the best option available second to coastal retreat.

Beach nourishment results in an engineered beach that may or may not restore natural processes. Artificial beach nourishment projects may modify ecosystem components (sand grain size, shape and color, silt-clay and moisture content, beach hardness, mineral content, water potential, structure, less habitat features (loss of ephemeral pools and washovers), and porosity/gas diffusion) and potentially cause detrimental changes to the biota in the area (Dean 2002).
Potential environmental effects from the proposed project could include:

- increased turbidity during dredging and placement of beach material, and the loss of, or change in, benthic macroinvertebrates at the dredging and placement locations,
- burial of dune vegetation,
- alteration and permanent loss of wintering and breeding habitat features preferred by resident and migratory birds,
- increase in predator density, and
- direct and indirect impacts to endangered species (sea turtles, piping plover, Choctawhatchee beach mouse).

Development on or adjacent to coastal areas impedes or completely inhibits the dynamic nature of coastal communities. Coastal development may include, but is not limited to, the construction of roads, highways, public infrastructure, hotels, condominiums, houses, harbors, and the need for associated shoreline protection. The development becomes a fixed landward boundary that prevents or disrupts the dynamic coastal processes and sedimentary exchanges. These pressures, collectively termed coastal squeeze (Doody 2001), lead to the reduction of habitat for coastal dependent species. Coastal squeeze, coupled with beach recreational pressures is a primary reason that state and federal lands have become an oasis for most coastal shoreline dependent species where natural processes are left more intact and recreational disturbances have more active management. Few areas remain where coastal species and habitats function naturally without human disturbance.

US Geological Service (USGS) (2021) summarize that sediment placement either through nourishment or emergency berms is a short-term strategy that can help protect coastal infrastructure and critical habitats from storm inundation. Nourishment may help reduce erosion under future sea-level rise; however, artificially high, nourished dunes reduce overwash and deprive back-barrier environments of deposition needed to keep pace with sea-level rise. The effects of sediment removal such as downdrift shoreline erosion and reduced sediment supply, may be worsened by sea-level rise. For more detailed information, USGS (2021) summarize: 1) the physical and biological impacts of sediment removal and placement on benthic habitats, 2) the impacts of sediment removal and placement on fish and other marine species, 3) changes in migratory bird nesting and foraging habitats resulting from sediment removal and placement; 4) long-term impacts of sediment placement on coastal resiliency, 5) the potential for shoreline changes from inner continental shelf removal. USGS's review shows that although beach nourishment have ecological impacts as these projects target human dimension benefits (recreational, structural protection, reset erosion), it is possible to minimize effects to barrier island ecosystems, which is critical for maintaining the physical and ecological integrity of the coastal barrier island system.

Benthic Communities

Because intertidal sandy beaches frequently experience erosion, transport, and deposition of the sediments that constitute the habitat for benthic invertebrates, these organisms are often assumed to be adapted to disturbances that mobilize sediments (NRC 1995). A limited literature supports this presumption of adaptation to sediment dynamics by showing little change in abundances of sandy beach macroinfauna after intense storms (e.g., Saloman and Naughton 1977). Most studies have led to a common assumption that recovery following any disturbance of the sediments should be rapid (NRC 1995). However, additional studies indicate the recovery is dependent upon quantity of sedimentation, the seasonal timing of disturbance, and the physical nature of the added sediments, and the rate of long shore sediment transport. Studies that have shown no substantial and long lasting impacts of beach filling on the benthic invertebrates (Hayden and Dolan 1974, Naqvi and Pullen 1982; Gorzelany and Nelson 1987; Burlas et al. 2001) appear not only to have used more compatible sediments but also to have been done on beaches characterized by high rates of long-shore sediment transport. In contrast, examples of large and long-lasting impacts (Reilly and Bellis 1983; Rakocinski et al. 1996; Peterson et al. 2000; Manning 2003; Versar 2003) come from sites of low long shore transport. Overwhelmingly, it is important that a beach fill project is designed to match the natural conditions to which the sandy beach biota has adapted (sediment characteristics, shoreline profile).

Shorebirds

Almost 40 species of shorebirds are present during nesting, migration and wintering periods in the Gulf of Mexico region (Helmers 1992). Beach nourishment reduces the number of natural overwash areas and ephemeral pool formations which are prime nesting (nearby), brood rearing, roosting, and foraging habitats. Continual degradation and loss of habitats used by wintering and migrating shorebirds may cause an increase in intra-specific and inter-specific competition for the remaining food supplies and roosting habitats. In Florida, for example, approximately 825 miles of coastline and parallel bayside flats were present prior to the advent of high human densities and beach hardening projects. We estimate that only about 35% of the Florida coastline continues to support natural coastal formation processes, thereby concentrating foraging and roosting opportunities for all shorebird species and forcing some individuals into suboptimal habitats. Thus, intra- and inter-specific competition most likely exacerbates threats from habitat loss and degradation.

An indirect effect of beach nourishment is an increase in density of human populations along the coastal areas (NOAA Coastal Services Center 2010). An increase in the density of humans causes an increase in disturbance to shorebirds. Intense human disturbance in shorebird habitat can be functionally equivalent to habitat loss if the disturbance prevents birds from using an area (Goss-Custard et al. 1996). Pfister et al. (1992) implicate anthropogenic disturbance as a factor in the long-term decline of migrating shorebirds at staging areas. Disturbance can cause shorebirds to spend less time roosting or foraging and more time in alert postures or fleeing from the disturbances (Burger 1991, 1994; Elliott and Teas 1996; Lafferty 2001a, 2001b; Thomas et al. 2003). Shorebirds that are repeatedly flushed in response to disturbance expend energy on costly short flights (Nudds and Bryant 2000).

Many species of Florida's water birds, including gulls, terns, skimmers, plovers, willets and oystercatchers nest on the beach. When these beach-nesting birds are disturbed and flushed off their nests by people or dogs, eggs and chicks in the nests are exposed to temperature extremes and predators like crows, raccoons and dogs. Beaches and islands that were once isolated are now inundated with boats, beach goers and their pets. It is easy for unknowing beach goers to crush the eggs or kill young chicks accidentally. Eggs and chicks of beach-nesting birds blend in with their surroundings and are nearly invisible on the ground.

Predators

An indirect effect of beach nourishment is an increase in density of human populations along the coastal areas (NOAA Coastal Services Center 2010). This can cause an increase in predators that may considerably decrease wildlife populations through depredation or competition especially if the non-native species are able to occupy the same habitats and use similar resources for breeding, feeding, and resting. Invasive plant species are also a product of human settlement can replace plant foods or wildlife or compete for space with native vegetation but to date has not been an issue in northwest Florida beaches.

Depredation and harassment of wildlife by native and non-native species, such as raccoon, coyote, fox, feral hog, cats, birds (specifically laughing gulls) and ghost crab, have been documented on the Atlantic and Gulf coasts of Florida (Daniel et al. 2002; Neuman et al. 2004; Northwest Florida

Partnership 2000; Leland 1997; Maxwell 2002, 2006 pers. com., NOAA Fisheries and U.S. Fish and Wildlife Service 1991a, 1991b). As nesting habitat for sea turtles and shorebirds dwindle, it is essential that nest production be maximized so wildlife may continue to exist in the wild.

Federally Listed Species

Sea Turtles

How coastal ecosystems are managed on sea turtle nesting beaches directly affects future generations of sea turtles and is essential for their recovery.
The beach restoration/nourishment is being proposed for protection of coastal development structures. The permanent line of structures created by development interfere with the natural dynamic coastal processes and may result in the loss or alteration of nesting habitat to one degree or another, typically making it less suitable for nesting female sea turtles, egg incubation, and hatchling emergence.

The proposed project will occur within habitat that is used by sea turtles for nesting and may be constructed during a portion of the sea turtle nesting season. Long-term and permanent impacts could include a change in the nest incubation environment from the sand placement activities. Short-term and temporary impacts to sea turtle nesting activities could result from project work occurring on the nesting beach during the nesting or hatching period, changes in the physical characteristics of the beach from the placement of the sand and change in the nest incubation environment from the material. Further analysis of the effects of beach nourishment on nesting and hatchling sea turtles is provided in the biological opinion.

Choctawhatchee Beach Mouse

The beach restoration/nourishment is being proposed for protection of coastal development structures. Development located along the beachfront causes destruction or change in the native dune vegetation usually by the placement of structures on the dunes or directly adjacent such that the dune system can no longer function naturally. Dunes naturally enhance beach stability and acts as an integral buffer zone between land and sea. Loss or destabilization of the dune system results in the loss of habitat for beach mice.

Generally, sand placement activities or dredged navigation channel material is not placed on existing beach mouse habitat consisting of vegetated dunes. Typical effects from these activities to beach mice and their habitats consist of the staging and storage of equipment, work vehicles, or materials and beach access for sand placement activities or dredged material placement. These effects may result in the permanent and temporary loss, degradation, or fragmentation of beach mouse habitat and changes in essential life history behaviors (dispersal and movement, foraging, seeking mates, breeding, and care of young). Beach mice spend their entire lives within the dune ecosystem and are nocturnal. Sand placement projects may occur at anytime of the year depending on their location and are usually conducted on a 24/7 schedule. The quality of the placed sand could affect the suitability of the beach and dunes to support beach mouse burrow construction and food sources. Further analysis of the effects of beach nourishment CBM is provided in the Statewide Programmatic biological opinion (FWS 2015).

Piping Plover

Piping plover are dependent on the ephemeral nature of the shoreline particularly areas with wrack, over wash, ephemeral pools, and other habitats devoid of significant amounts of emergent vegetation. While found in the Florida panhandle seasonally during migration and the cooler months of the year, piping plover can be observed 10 of the 12 months of the year.
Past and ongoing beach restoration projects fundamentally alter the naturally dynamic coastal processes that create and maintain beach strand and bayside habitats, including those habitat components that piping plovers rely upon.

Although impacts may vary depending on a range of factors, restoration projects directly degrade or destroy piping plover roosting and foraging habitat in several ways. Front beach habitat may be used to construct an artificial berm that is densely planted in grass, which can directly reduce the availability of roosting habitat. Over time, if the beach narrows due to erosion, additional roosting habitat between the berm and the water can be lost. Berms can also prevent or reduce the natural overwash that creates roosting habitats by converting vegetated areas to open sand areas. The vegetation growth caused by impeding natural overwash can also reduce the maintenance and creation of bayside intertidal feeding habitats. Nourished beaches are created in even formation, removing dips and ephemeral pools preferred by plovers. In addition, stabilization projects may indirectly encourage further development of coastal areas and increase the threat of human disturbance (vehicular, pets, people).

Habitat loss and degradation on winter and migration grounds from shoreline and inlet stabilization efforts, both within and outside of designated critical habitat, remain a serious threat to all piping plover populations. In some areas, beaches that abut private property are needed by wintering and migrating piping plovers. However, residential and commercial developments that typically occur along private beaches may pose significant challenges for efforts to maintain natural coastal processes. The threats of habitat loss and degradation, when combined with the threat of sea-level rise associated with climate change, raise serious concerns regarding the ability of private beaches to support piping plovers over the long term.

The future actions that are taken on private beaches will determine whether piping plovers continue to use these beaches or whether the recovery of piping plovers will principally depend on public property. As Lott (2009) concludes, “The combination of development and shoreline protection seems to limit distribution of non-breeding piping plovers in Florida. If mitigation or habitat restoration efforts on barrier islands fronting private property are not sufficient to allow plover use of some of these areas, the burden for plover conservation will fall almost entirely on public land managers.”

While public lands may not be at risk of habitat loss from private development, significant threats to piping plover habitat remain on many municipal, state, and federally owned properties. These public lands may be managed with competing missions that include conservation of imperiled species, but this goal frequently ranks below providing recreational enjoyment to the public, readiness training for the military, or energy development projects.

Public lands remain the primary places where natural coastal dynamics are allowed. Of recent concern are requests to undertake beach nourishment actions to protect coastal roads and military infrastructure on public lands. If project design does not minimize impediments to shoreline overwash, which are needed to help replenish bayside tidal flat sediments and elevations, significant bayside habitat may become vegetated or inundated, thereby exacerbating the loss of preferred piping plover habitat. Conversely, if beach fill on public lands is applied in a way that allows for "normal" system overwash processes, and sediment is added back to the system, projects may be less injurious to barrier island species that depend on natural coastal dynamics.

Maintaining wrack for food and cover in areas used by piping plovers may help offset impacts that result from habitat degradation due to sand placement associated with berm and beach nourishment projects and ensuing human disturbance. Leaving wrack on private beaches may improve use by piping plovers, especially during migration when habitat fragmentation may have a greater impact on the species. In addition, using recreation management techniques may minimize the effects of habitat loss.

Other Issues Related to Natural Resource Conservation

Recreation

Recreational seashore activities are overwhelmingly concentrated on the sandy beach. Growing coastal populations, coupled with more leisure time and improved mobility, have escalated the intensity and spatial ambit of recreation over recent decades (De Ruyck et al. 1997; Caffyn and Jobbins 2003; Fanini et al. 2006). Being the prime sites for human recreation, beaches support many coastal economies (Klein et al. 2004). Beach management therefore customarily focuses on maximizing the recreational experience for beach users, which often results in the need for human interventions such as nourishment (Speybroeck et al. 2006), beach grooming (Llewellyn and Shackley 1996; Dugan et al. 2003), coastal armoring (Dugan and Hubbard 2006; Dugan et al. 2008), destruction of dunes to construct tourism infrastructure (Nordstrom 2000), and light and sound pollution (Bird et al. 2004; Longcore and Rich 2004) that can be ecologically harmful. These interventions also result in attracting more people to the coast from a misperception that there's plenty of "beach" for building and it's permanent.

Impacts caused directly by recreational activities are emerging as significant environmental issues (Schlacher et al. 2008b). Defeo et al (2009) summarizes the effects of human recreation use related activities including dune habitat destruction for beach access from foot traffic trampling or vehicle access over the vegetation, intertidal- and supra-littoral faunal impacts from pedestrian use, vehicle traffic, beach cleaning/grooming, vendors, and off-road vehicle driving. Human activities disturb shorebirds, modifying key behavioral traits that are crucial to their survival and reproduction (Burger 1991, 1994; Lord et al. 2001; Verhulst et al. 2001) and beach grooming removes the wrack reducing food source or habitat, sifting the sand which disturbs or kills prey invertebrate species.

Climate Change

The varying and dynamic elements of climate science are inherently long term, complex and interrelated. Regardless of the underlying causes of climate change, glacial melting and expansion

of warming oceans are causing sea level rise, although its extent or rate cannot as yet be predicted with certainty. At present, the science is not exact enough to precisely predict the time, location, or magnitude of climate impacts. These impacts may take place gradually or episodically in major leaps.

According to the Intergovernmental Panel on Climate Change Report (IPCC 2007a, 2007b), warming of the earth's climate is "unequivocal," as is now evident from observations of increases in average global air and ocean temperatures, widespread melting of snow and ice, and rising sea level. The IPCC Report (2007a, 2007b) describes changes in natural ecosystems with potential wide-spread effects on many organisms, including marine mammals and migratory birds. The potential for rapid climate change poses a significant challenge for fish and wildlife conservation. Species' abundance and distribution are dynamic, relative to a variety of factors, including climate. As climate changes, the abundance and distribution of fish and wildlife will also change. Highly specialized or endemic species are likely to be most susceptible to the stresses of changing climate. Climate change at the global level drives changes in weather at the regional level, although weather is also strongly affected by season and by local effects (e.g., elevation, topography, latitude, proximity to the ocean. Temperatures are predicted to rise from 2ºC to 5ºC for North America by the end of this century (IPCC 2007a, 2007b). Other processes to be affected by this projected warming include rainfall (amount, seasonal timing, and distribution), storms (frequency and intensity), and sea level rise. The 2007 IPCC report found a 90 percent probability of 7 to 23 inches of sea level rise by 2100.

Climatic changes in Florida could amplify current land management challenges involving habitat fragmentation, urbanization, invasive species, disease, parasites, and water management. Florida is one of the most vulnerable areas in the world to the consequences of climate change. One of the most serious threats to Florida's coasts comes from the combination of elevated sea levels and intense hurricanes.

Florida has over 1,350 miles of coastline, low-lying topography, and proximity to the hurricane-prone subtropical mid-Atlantic Ocean and Gulf of Mexico. As a result, barrier islands and low-lying areas of Florida will be more susceptible to the effects of storm surge. Rising sea levels will result in pushing the high-water mark landward, causing beaches to migrate slowly inland. The primary result where development exists is increased erosion rates. This could particularly impact areas with low-lying beaches where sand depth is a limiting factor, (Daniels et al. 1993; Fish et al. 2005; Baker et al. 2006). These losses could be accelerated due to a combination of other environmental and oceanographic changes such as an increase in the frequency of storms and/or changes in prevailing currents, both of which could lead to increased beach loss via erosion (Antonelis et al. 2006; Baker et al. 2006).

Florida experiences more landings of tropical storms and hurricanes than any other state in the U.S. Storm surges due to hurricanes will be on top of elevated sea levels, tides, and wave action. An important element of adaptation strategy is how to protect beaches, buildings and infrastructure against the effects of rising seas and wind, wave action and storm surge due to hurricanes. Beach restoration or nourishment is one such alternative. Coastal retreat may prove more the best financial and environmental alternative.

Deep Water Horizon Mississippi Canyon 252 Oil Spill 2010

The Mobile Offshore Drilling Unit Deepwater Horizon, located in the Gulf of Mexico about 51 miles southeast of Venice, Louisiana exploded and caught fire on April 20 and sank on April 22, 2010. Slurried (thickened) oil was documented on northwest Florida beaches beginning the week of June 14, 2010. Impacts to Okaloosa County from the Deep Horizon MC 252 oil spill appears limited to tar balls, dispersants in the water, and increased human presence on the beaches during daytime and nighttime hours conducting oil spill response including clean-up and monitoring. The impacts of the oil spill to the shoreline and shoreline dependent species remain unknown.

DISCUSSION

The 6 mile stretch of beach included in the project area is a major asset of natural beauty and economic importance to the community in addition to habitat for some coastal wildlife. Although many of its attributes have been compromised by development and the placement of numerous structures adjacent to the shoreline, it continues to provide aesthetic and some ecological functions. In the best interest of wildlife resources the Service believes that the natural dynamics of the coast would have the greatest benefits to the wildlife resources. The Service also understands the economic importance of this project. This project through careful design and implementation can minimize the impact to wildlife resources. The following recommendations may provide additional measures necessary to offset potential negative impacts to fish and wildlife resources.

RECOMMENDATIONS

1. Construct the berm or dune features in a non-linear patter to emulate natural beach-dune systems. Gaps and open areas behind the "dunes" provide protected habitat for nesting shorebirds and beach mice.
2. 500-1000 foot wide shoreline segments/zones where no sand deposition is allowed within the intertidal zone will be established every mile for survival and recovery of invertebrate food resources in identified areas with highest concentrations of shorebirds OR at a regular interval along the beach per the restoration protocol.
3. Any sand placement dunes, berms, or dunets, will be tapered 75 to 150 feet from inlet and outfall areas.
4. The Service discourages the use of sand fencing, but if deemed necessary, project must follow Service-provided best management practices, including the use of bio-degradable materials that does not require removal.
5. Plant dune features in sparse density (less than 50%), but high plant species variety--following the recommendations in Miller and Thetford's (2018) publication "Dune Restoration and Enhancement for the Florida Panhandle" for species and installations found under "active restoration applications (page 19). https://edis.ifas.ufl.edu/pdf%5CSG%5CSG15600.pdf
6. Incorporate the use of coastalplain honeycombhead (*Balduina angustifolia*) behind the dune features to help support the expansion of use by the rare Gulf Coast solitary bee (*Hesperapis oraria*).
7. Project construction activities will avoid key nesting seasons of protected species.

8. Protect permanent and ephemeral pools, lagoons and sand spits during project construction as these provide optimal foraging and roosting areas year around for shorebirds.
9. Create a permanent pool feature between the Project area, east but adjacent East Pass inlet and protect it from disturbance. Around the created pool, spread out shell-mash for nesting shorebirds in sections at least 20 feet by 10 feet in size. Have the local sponsor commit to posting and roping around the newly created feature to reduce disturbance for roosting and nesting water- and shore-birds year around. Educational signs should be placed around the feature to explain the importance of these areas for birds.
10. Monitoring is the responsibility of the applicant and protocols for listed species and habitat features such as vegetative survival, expansion, and dune growth will be detailed in the restoration protocol. Per the adaptive management protocol, if certain restoration features are not successful, modifications within the intent and scope of the original action will be made (i.e., a replanting or re-stabilization of a vegetative island) on the next sand placement event.
11. Access will be granted for Service and other federally-permitted personnel to conduct monitoring of the project site.
12. US Geological Survey (USGS) recently published "Impacts of sediment removal from and placement in coastal barrier island systems" (Miselis et al. 2021). This publication identifies several knowledge gaps and recommendations necessary to inform future sand placement events. We recommend the Corps work with USGS and set up appropriate studies concerning the effects of sediment placement on short- and long- term time scales as summarized in sections 3.3.3 (p. 23), 4.4 (p. 30), 6.3.2 (p. 45), and 7.4 (p. 51).
13. Compliance and enforcement will be the responsibility of the local sponsor for the following rules within the habitat restoration project area:
    a. Post and rope (and signage if needed for compliance) will be installed $\geq$25 feet seaward of the starter dune to prevent human disturbance. For large projects this may not be attainable so focus will be on documented high disturbance areas. Untrampled beach areas maintain and establish vegetation, traps sand, and therefore new starter dunes are more likely to accumulate.
    b. The local sponsor is to protect the "wrack line" (organic debris that washes up with the tide) within the Project Area, post-construction and between sand placement events. Beach cleaning could increase erosion. Suggesting alternatives methods of beach cleaning may reduce frequency of sand placement events. At the minimum, beach cleaning is to occur dune-side of the wrack line, leaving the primary wrack line protected.
    c. Wildlife friendly lighting (The Dark Skies Initiative) will be used where lighting is needed and existing ordinances will be enforced. Lighting considerations will be incorporated throughout the entire affected coastal dune habitat to encompass all nocturnal coastal wildlife.

d. Nighttime activities, other than walking, will not be permitted on the beach in the project footprint (for example, fires, driving, pets on beach).
e. Pets will not be permitted on the beach in the project footprint (depending on the scope of the project, some limited areas can be used by pets if already authorized).
f. Creation of driving corridors for vendors, and emergency personal that routinely travel the beaches.
g. Predators will be deterred through installation of predator-proof trash receptacles at select roadside access points. Trash along the shoreline can be manually picked up as needed.
h. An educational kiosk or signage will be placed at the project site providing information about coastal species and the benefit of habitat restoration and a receptacle for fishing line will be placed at access areas.

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DEPARTMENT OF THE ARMY
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P.O. BOX 2288 MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:

Coastal Environmental Team
Planning and Environmental Division

Mr. Mark Sramek
National Marine Fisheries Service
Southeast Regional Office, Habitat Conservation Division
263 13th Avenue South
St. Petersburg, Florida 33701-5505

Dear Mr. Sramek:

The U.S. Army Corps of Engineers (USACE), Mobile District, is conducting the Okaloosa County Coastal Storm Risk Management (CSRM) Study to determine if there is Federal interest in a plan to reduce damages to infrastructure as a result of flooding from storm surge, tides and waves during coastal storms and hurricanes along the shoreline of Okaloosa County; see Figure 1, site location map. Progress of this authorized study has led to the development of a Tentatively Selected Plan (TSP) that will identify the study problems and meet its objectives.

Project Description

TSP for the Okaloosa CSRM Feasibility Study consists of berm and dune nourishment in the Okaloosa Island and West Destin reaches of the study area. In the Okaloosa Island reach (R01 – R15), the plan consists of providing a dune with a crest elevation of 14 feet and a crest width of 10 feet; and a berm with a crest width of 10 feet and a crest elevation of 5.5 feet. In the West Destin reach (R18 – R32), the plan consists of providing a dune with a crest elevation of 14 feet and a crest width of 10 feet, and a berm with a crest width of 30 feet and a crest elevation of 5.5 feet. No work will occur within the Coastal Barrier Resource Areas (CBRA) units 32 and 32P on the east Destin shoreline.

Borrow Areas

Sand sources for the project will be dredged from two offshore borrow areas, Okaloosa borrow area A (OKA) and Okaloosa borrow area B (OKB). Borrow area OKA is located about 1.5 miles offshore from Okaloosa Island, and is estimated to contain adequate volume for the initial construction. It is currently permitted for use by the Non-Federal Sponsor, and meets state code for sand quality for beach placement. Borrow area OKB is located about 7 miles offshore from Destin, Florida. Although it's not currently permitted, a geotechnical survey

has determined the quality of the material would meet the state code. Additional geotechnical investigation is pending along with permit application with the Florida Department of Environmental Protection.

Details of the proposed TSP can be found in the project's Feasibility Report with Integrated Environmental Assessment (FR/EA). Enclosures depict the borrow area locations and material placement plan view along with profiles of typical placement for both Okaloosa Island and west Destin shorelines. Approximately 1 million cubic yards (cys) of sandy material will be dredged from borrow area OKA utilizing either a hydraulic or mechanical dredge(s) during the initial project construction. This sandy material would be placed within the identified beach template via pipeline(s) and redistributed throughout the area utilizing heavy equipment, such as bulldozers. The project footprint below the water encompasses approximately 58 acres of beach fill and approximately 700 acres from borrow area OKA. Borrow area OKB includes another 806 acres and would be utilized for future renourishment events anticipated to occur every 10 years. Borrow area OKA and OKB range in water depths of 38 to 49 feet and 67 to 71 feet below National Geodetic Vertical Datum (NAVD88), respectively.

Analysis of Data

Congress defines Essential Fish Habitat (EFH) as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity," the designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. The National Marine Fisheries Service (NMFS), Habitat Conservation Division (HCD) has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine areas, such as estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. In addition, marine areas, such as the water column, vegetated and non-vegetated bottoms, artificial and coral reefs, geologic features, and continental shelf features have also been identified. The selected borrow areas are characterized as sandy bottom and do not contain any hard-bottoms, coral reefs, oyster beds, or seagrasses.

EFH encompasses the entire open-water area adjacent to the shoreline of Okaloosa County, including the project area of the TSP as depicted in Figure 2. EFH Areas (EFHA) are mapped locations that are protected from fishing or have additional restrictions for fishing. The EFHA shown in the enclosed Figure 2 is located several miles offshore away from the project limits. Table 1 lists the species managed by the Gulf of Mexico Fishery Management Council that could occur in the project area.

In general, the infauna of the shoreline consists primarily of small polychaetes and crustaceans. Their populations fluctuate on both a seasonal and annual

basis. Epibenthic invertebrates include penaeid shrimp, blue crab, squid, and grass shrimp and mud crabs. Penaeid shrimp and blue crabs are harvested commercially and are not restricted to a particular habitat type, but occur mostly in Choctawhatchee Bay which is located near the vicinity of the project site, although not within the footprint of the project. Additionally, although extensive seagrass beds are present near East Pass within Choctawhatchee Bay, there are no known submerged aquatic vegetation (SAV) found within the project area.

Habitat Areas of Particular Concern (HAPCs) are discrete subsets of EFH that provide extremely important ecological functions or are especially vulnerable to degradation. The HAPC designation does not provide additional protection or restrictions upon an area, but can help prioritize conservation efforts. HAPCs are described in the implementing regulations of the EFH provisions at 50 C.F.R. § 600.815. There are not any HAPCs in the project area; the closest HAPC to the project area is the Madison-Swanson Marine Reserve which is located about 88 miles southeast of Okaloosa County coastline, see Figure 2.

Analysis of Effects

Material would be removed from the designated borrow area via hopper/mechanical dredge and pumped onto the beach to create the desired template. This method is preferable in terms of turbidity reduction and minimizing the potential impact to fish and wildlife. Most of the motile benthic and pelagic fauna, such as crab, shrimp, and fish, should able to avoid the disturbed area and should recover shortly after the activity is completed. No long-term direct impacts to managed species are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through the dredging and placement operations. These species are expected to recover rapidly soon after the dredging and placement operations are complete.

USACE, Mobile District has taken extensive steps to reduce and avoid potential impacts to EFH as well as other significant area resources. USACE, Mobile District will be adhering to water quality requirements under the conditions specified by the Florida Department of Environmental Protection (FDEP) to further reduce impacts to EFH. Turbidity levels from dredging and disposal operations would be monitored and identified per the project's State of Florida water quality certification.

Based on the above assessment of the project in relation to impacts to fisheries resources, the overall impact to identified species is considered negligible given the relatively small area. Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (PL 94-265), we request your concurrence with our determination that the project will not likely result in significant impacts to EFH.

If we can be of any further assistance to you, please contact Ms. Kathleen McConnell via email at kathleen.k.mcconnell@usace.army.mil or via phone at (251) 694-3804 or via cellphone at (251) 323-2533.

Sincerely,

JACOBSON.JENNIFER.L.1230598386 Digitally signed by JACOBSON.JENNIFER.L.1230598386 Date: 2021.01.22 14:58:12 -06'00'

Jennifer L. Jacobson
Chief, Environment and Resources Branch

Enclosures

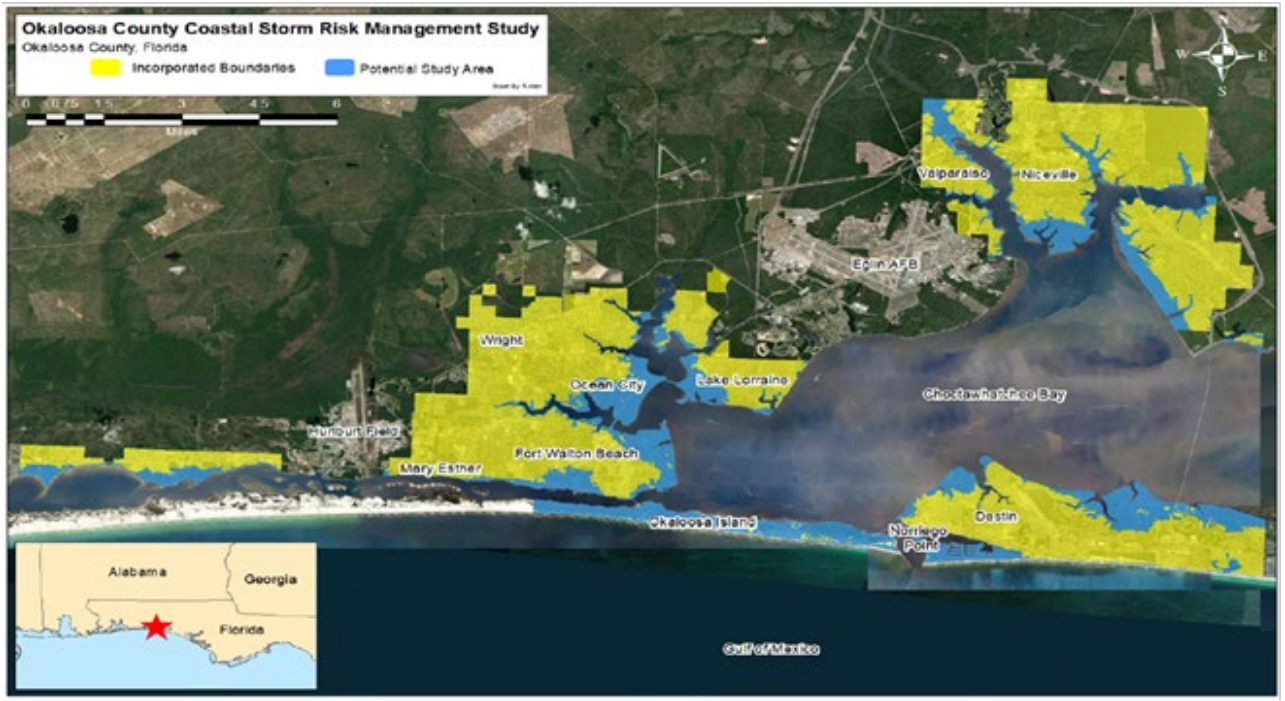


Figure 1. Study Location Map

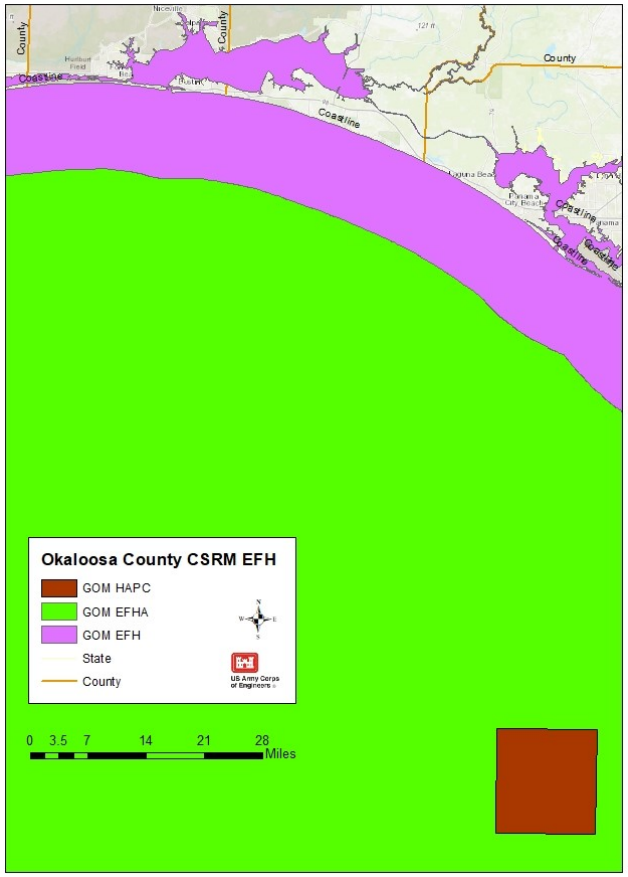
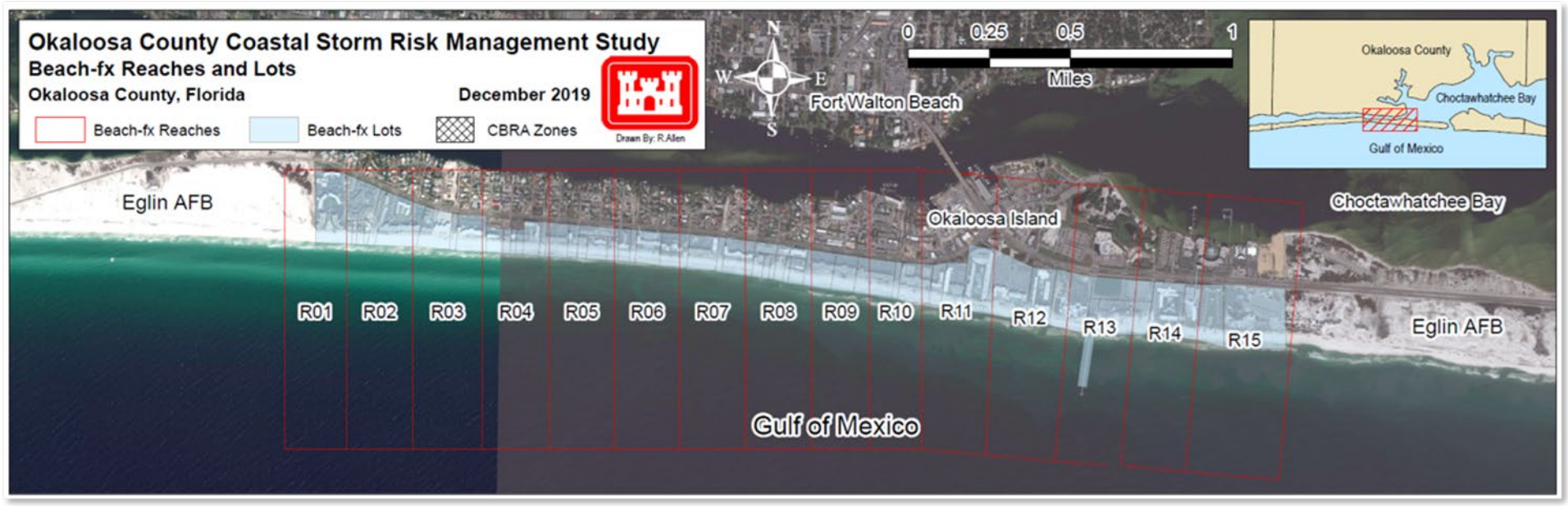


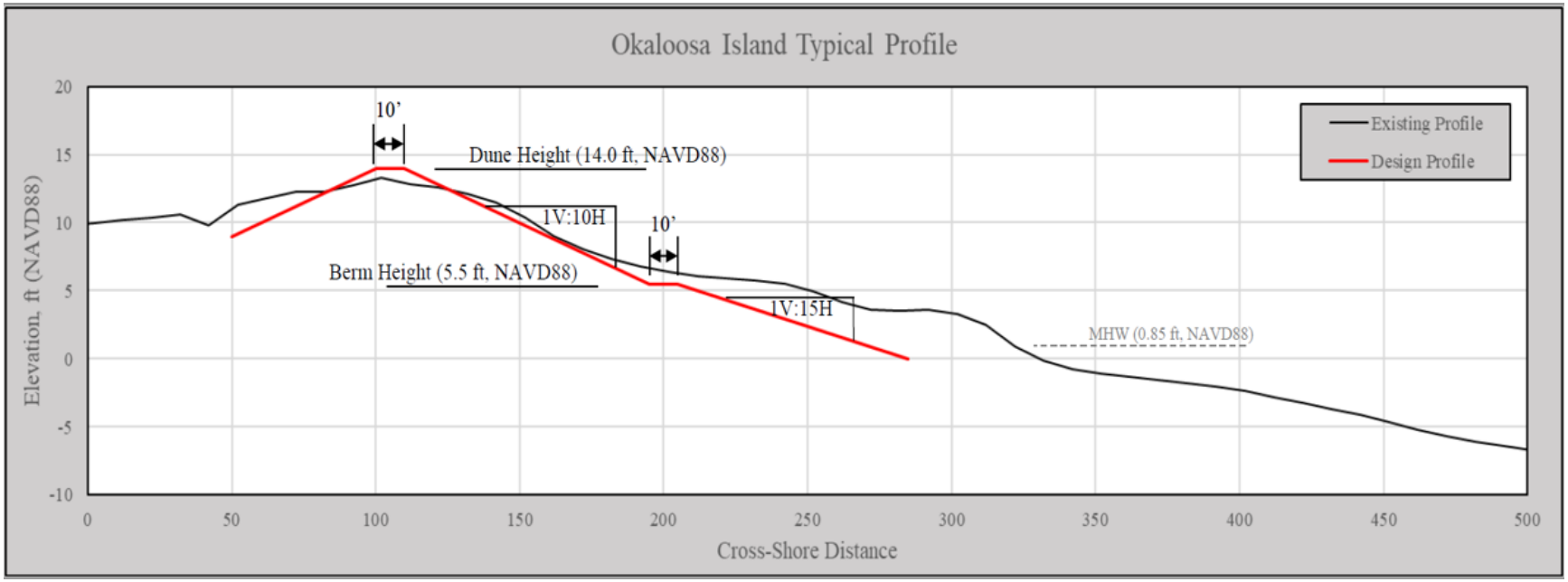
Figure 2. Essential Fish Habitat

Table 1: Managed Fisheries for the Gulf of Mexico

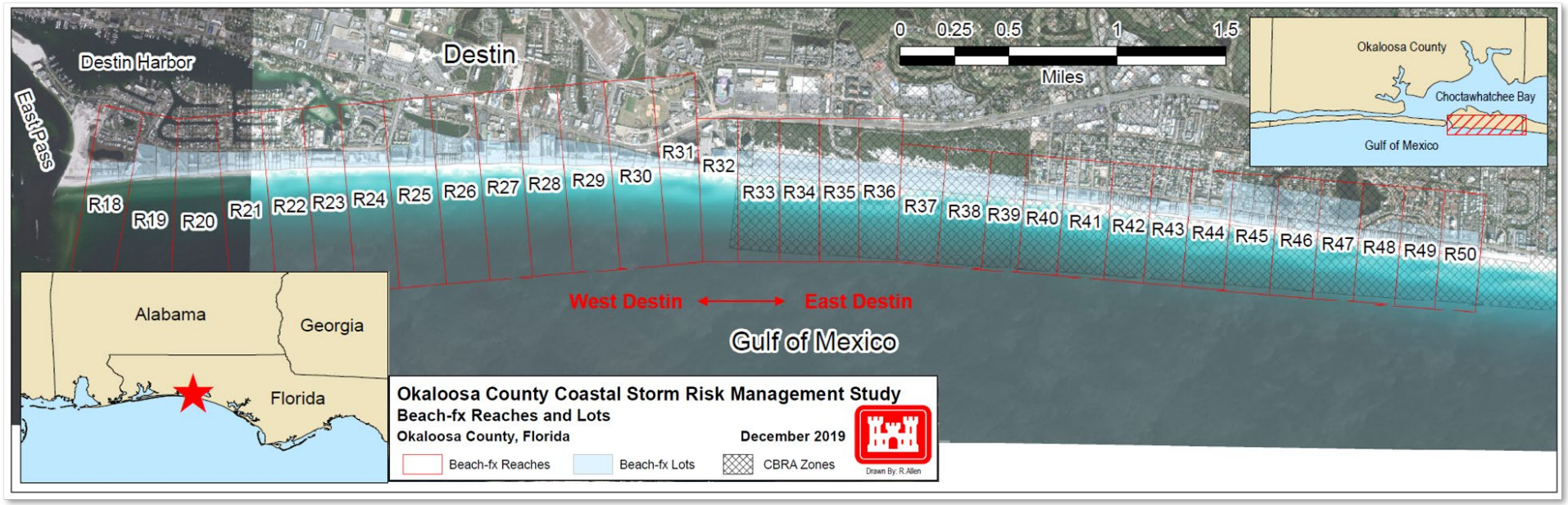
Common and Scientific Name	Common and Scientific Name
Bull shark *Carcharhinus leucas*	Bonnethead *Sphyrna tiburo*
Bluntnose stingray *Dasyatis sayi*	Ladyfish *Elops saurus*
Speckled worm eel *Myrophis punctatus*	Scaled sardine *Harengula pensacolae*
Striped anchovy *Anchoa hepsetus*	Bay anchovy *Anchoa mitchilli*
Dusky anchovy *Anchoa lyolepis*	Silver anchovy *Engraulis eurystole*
Scaled sardine *Harengula jaguana*	Sea catfish *Arius felis*
Gulf toadfish *Opsanus beta*	Halfbeak *Hyporhamphus unifasciatus*
Atlantic needlefish *Strongylura marina*	Redfin needlefish *Strongylura notata*
Sheepshead minnow *Cyprinodon variegates*	Longnose killifish *Fundulus grandis*
Roush silverside *Membras martinica*	Tidewater silverside *Menidia beryllina*
Gulf pipefish *Syngnathus scovelli*	Bluefish *Pomatomus saltatrix*
Cobia *Rachycentron canadum*	Northern sennet *Sphyraena borealis*
Crevalle jack *Caranx hippos*	Yellow jack *Caranx bartholomaei*
Atlantic bumper *Chloroscombrus chrysurus*	Leatherjacket *Oligoplites saurus*
Florida pompano *Trachinotus carolinus*	Spotfin mojarra *Eucinostomus argenteus*
Silver jenny *Eucinostomus gula*	Pigfish *Orthopristis chrysoptera*
Sheepshead *Archosargus probatocephalus*	Pinfish *Lagodon rhomboides*
Silver perch *Bairdiella chrysura*	Spotted seatrout *Cynoscion nebulosus*
Sand seatrout *Cynoscion arenarius*	Silver seatrout *Cynoscion nothus*
Spot *Leiostomus xanthurus*	Atlantic croaker *Micropogon undulates*
Southern kingfish *Menticirrhus americanus*	Gulf kingfish *Menticirrhus littoralis*
Minkfish *Menticirrhus focaliger*	Black drum *Pogonius cromis*
Atlantic spadefish *Chaetodipterus faber*	Striped mullet *Mugil cephalus*
White mullet *Mugil curema*	Atlantic threadfin *Polydactylus octonemus*
Southern stargazer *Astroscopus y-graecum*	Leopard searobin *Prionotus scitulus*
Spotted whiff *Citharichthys macrops*	Gulf flounder *Paralichthys albigutta*
Planehead filefish *Monacanthus ciliatus*	Striped burrfish *Chilomycterus schoepfi*
Permit *Trachinotus falcatus*	Lizardfish *Synodus foetens*

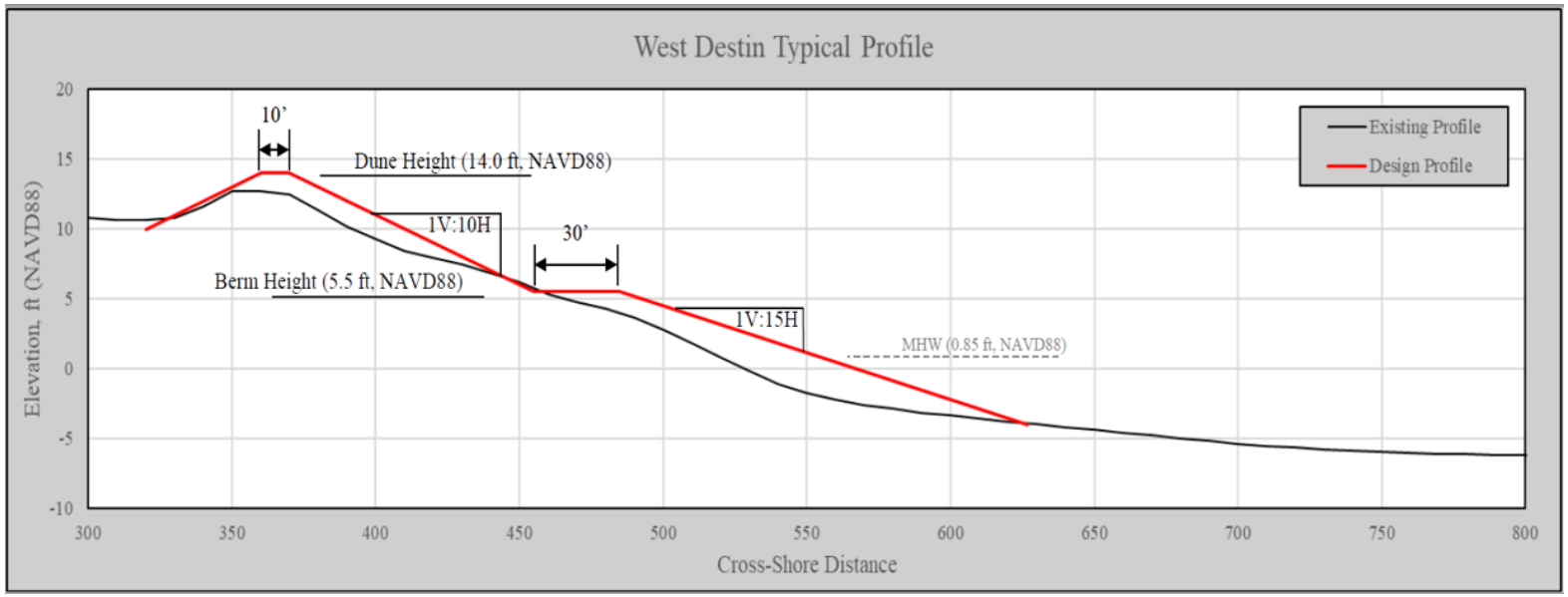
Okaloosa County CSRM Okaloosa Island TSP



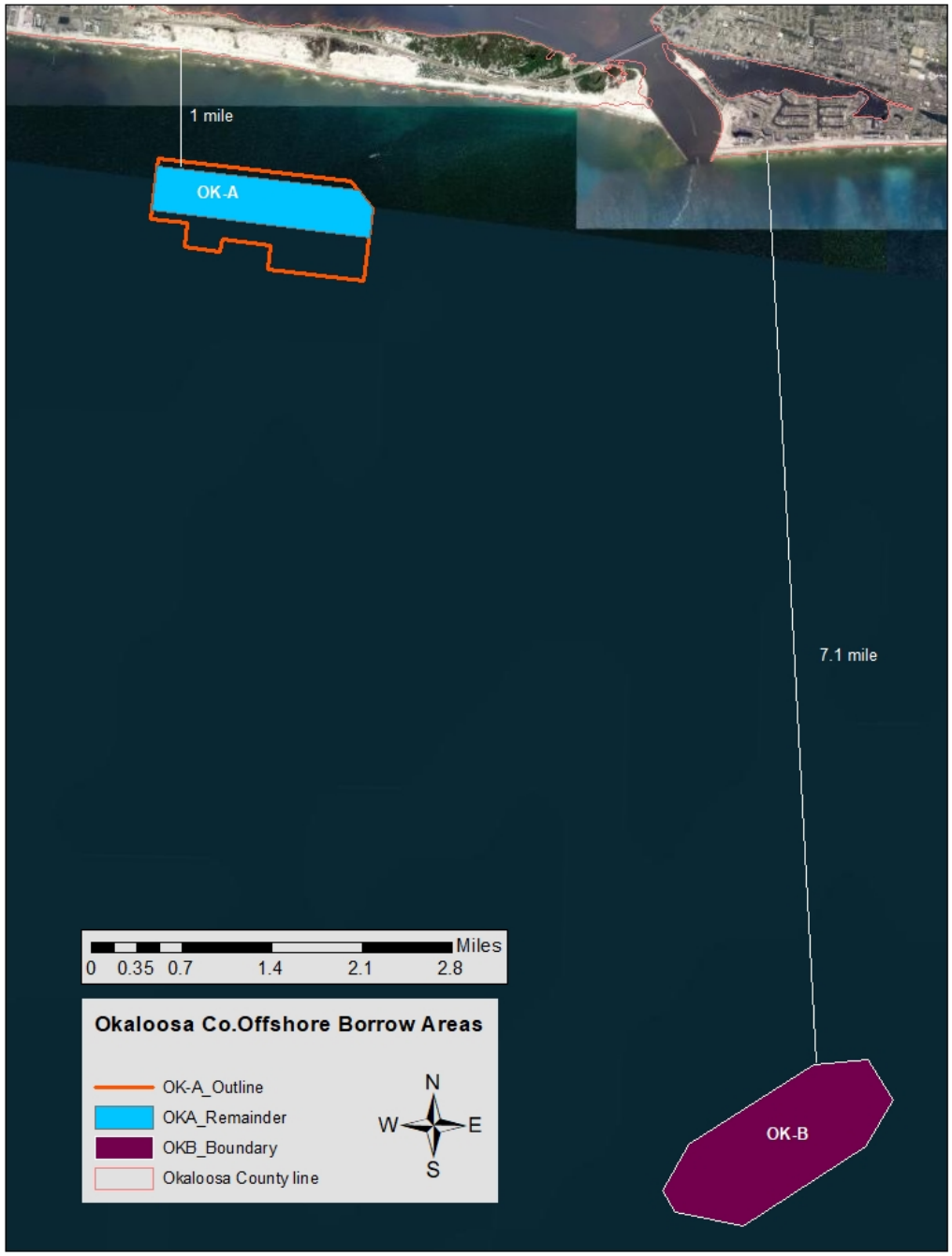


Okaloosa County CSRM West Destin TSP





Okaloosa County CSRM Borrow Areas for Proposed Action TSP



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast

March 8, 2021 F/SER46:MS/RS

Colonel Sebastien P. Joly
District Commander, Mobile District
U.S. Army Corps of Engineers
109 St. Joseph Street
Mobile, Alabama 36602-3614

Dear Colonel Joly:

NOAA's National Marine Fisheries Service (NMFS), Habitat Conservation Division (HCD), has reviewed your office's January 2021 Okaloosa County, Florida, Coastal Storm Risk Management (CSRM), Integrated Feasibility Study and Environmental Assessment (EA) and essential fish habitat (EFH) assessment. The Project purpose is to assess coastal storm damages, including critical shoreline erosion, occurring along the 26.7 miles of Okaloosa County beachfront shorelines, and identify potential economically justified and environmentally sound solutions. The Tentatively Selected Plan for the Okaloosa CSRM Project would include berm and dune nourishment in the Okaloosa Island and West Destin reaches of the study area.

The NMFS electronically requested additional information from the Mobile District on February 21, 2021, regarding potential impacts to EFH, including hardbottom habitat, within the Project's offshore sediment borrow areas, potential pipeline routes, and nearshore beach renourishment areas. District staff provided our office with results of the Florida Department of Environmental Protection's Regional Offshore Sand Source Inventory (ROSSI). Benthic survey information in the ROSSI revealed the project area does not support hardbottom habitats. Staffs from our agencies held a meeting on March 5, 2021, to further discuss the project and NMFS HCD requested a pre-construction benthic survey to identify potential ephemeral hardbottom habitat not currently identified in the ROSSI. During the meeting, the Mobile District indicated benthic surveys would be conducted during the project Preconstruction, Engineering and Design (PED) Phase.

Based upon our review of the EA and EFH assessment, the District's response to our request for additional information, and information in the ROSSI, we anticipate any impacts from the Okaloosa County CSRM Project on EFH would be minimal. Accordingly, the NMFS, HCD does not have any EFH conservation recommendations to provide at this time. We look forward to continue working with the Mobile District on this project during the PED Phase and may foresee the need to re-consult should future benthic surveys identify categories of EFH in the project area.

Thank you for your consideration of these comments. Please contact Mr. Mark Sramek at the letterhead address, through email at Mark.Sramek@noaa.gov or by calling (727) 824-5311 if you have questions regarding these comments.

Sincerely,

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:
F/SER4 – Dale, Scarpa
F/SER – Silverman, Rosegger

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

11 January 2021

Inland Environment Team
Planning and Environmental Division

Dr. Timothy Parsons
State Historic Preservation Officer
Division of Historical Resources
R.A. Gray Building
500 S. Bronough Street
Tallahassee, Florida 32399-0250

Dear Dr. Parsons:

The U.S. Army Corps of Engineers (USACE), Mobile District is writing to consult on the Okaloosa County Storm Risk Management Feasibility Study (Project) to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (Section 106; 54 USC 306108). The proposed Project will involve the placement of sand along sections of the Gulf coast in Okaloosa County to build berms and dunes for storm surge protection. USACE, Mobile District has also established the Area of Potential Effect (APE) for the Project and maps are enclosed for your review and comment (Enclosures 1 - 4). Background research conducted by USACE, Mobile District indicated that archaeological surveys of the Okaloosa Island and West Destin shorelines and marine remote sensing surveys of the borrow areas (OK-A and OK-B) for the proposed Project did not identify any historic properties within the proposed APE. USACE, Mobile District has therefore determined that the proposed Project will result in **no historic properties affected** according to 36 CFR § 800.4[d][1]. Division B, Subdivision 1, Title IV of the Bipartisan Budget Act (BBA) of 2018 (Public Law 115-123), authorizes USACE, Mobile District to conduct this study at full federal expense to the extent that appropriations provided under the Investigations heading of the 2018 BBA are available and used for such a purpose.

The proposed Project comprises construction of dunes and beach berms which will measure 14 foot (ft) high and 10 ft to 30 ft wide along stretches of Okaloosa Island and West Destin coastlines, respectively. Sand for the construction of the dunes and beach berms will be dredged from borrow sites OK-A and OK-B. The beach dune and berm construction areas on Okaloosa Island and in West Destin and the boundaries of borrow sites OK-A and OK-B comprise the APE for the proposed Project (Enclosure 1). The Okaloosa Island portion of the APE covers 50 hectares (ha) (124 acres) and is 5.8 kilometers (km) (3.6 miles) long and averages 115 meters (m) (377 ft) wide (Enclosure 2). The West Destin APE covers 99 ha (245 acres), is 12.9 km (8 miles) long and averages 117.4 m (385.2 ft) wide (Enclosure 3). OK-A is located 2.4 km (1.5 miles)

south of Okaloosa Island, covers 284 ha (702 acres), and contains approximately 5.1 million cubic yards (mcy) of usable sand. OK-B is 11.3 km (7 miles) off the of Destin coastline, covers 326 ha (806 acres), and contains 6.4 mcy of usable sand (Enclosures 3—4).

Archaeological surveys of both the Okaloosa Island and West Destin shoreline portions of the APE were conducted in support of the Deepwater Horizon Oil Spill Response in the State of Florida between June 2010 and June 2013. Borrow areas OK-A and OK-B were also subjected to remote sensing, diver evaluation, and monitoring investigations in 2007. The survey of the Okaloosa Island and West Destin portions of the APE were part of a larger investigation that covered more than 526 km of shoreline within seven counties of the Florida Panhandle. This survey was focused on the intertidal beach and upper beach and berm zones of the coastline which represent dynamic environmental zones constantly shaped by waves, tides, and storms that shift large volumes of sand. The large oil spill response survey resulted in the assessment of 20 new historic resource sites and 157 previously recorded sites. Only seven of these sites are located along the shoreline within Okaloosa County. These sites are all located in undeveloped areas east and west of the Okaloosa Island portion of the APE.

Previous work on borrow sites OK-A and OK-B include archaeological monitoring and evaluation of offshore coring conducted in 2007 (Wharton et al. 2008) and a remote sensing survey and diver evaluation project also conducted in 2007 (Lydecker 2008) (Enclosure 4). Monitoring of offshore coring activities for the borrow areas recovered wood fragments thought to be cultural, however, these were not found within the proposed OK-A and OK-B borrow areas. Remote sensing work identified 135 magnetic anomalies, 13 of which comprised 4 separate clusters interpreted as potential historic properties. These anomaly clusters were evaluated by divers and were found to not represent historic properties. A total of 13 side scan sonar targets were also identified and did not represent historic properties. Both the remote sensing and monitoring projects determined that no potentially significant submerged cultural resources were present within the proposed OK-A and OK-B borrow areas and did not recommend additional archaeological work.

Much of the area surrounding the shoreline portions of the APE has been extensively developed. The broader region has also experienced numerous catastrophic hurricane landfalls. Evidence for the frequency of these storms over the last 680 years is preserved in sediments in Lake Shelby, Alabama and highlight a particularly intense period during the early 1500s. This has only been rivaled by storm frequencies observed during the last 50 years since 1970. Pre-Contact Native American inhabitants of the region would have known about the potential for sudden and catastrophic storms along the Gulf Coast. This likely precluded intensive pre-Contact settlement of the shoreline portions of the APE and limited pre-Contact use to short-term subsistence or

resources exploitation activities. Archaeological evidence of these short-term activities typically comprises small temporary camps which would have been highly susceptible to erosion within the APE (Wharton et al. 2014:2-16).

Since the late 1900s changing environmental conditions have resulted in the dramatic beach erosion along the Gulf Coast of Florida. State and municipal governments have attempted to address this problem by artificially renourishing beaches. These beach renourishment projects pumped sand obtained from dredging navigation channels and other offshore borrow areas onto eroded beaches to build up former dunes, upper beach areas, and nearshore zones (Wharton et al. 2014:2-20). In 2006 (following impacts of hurricanes Ivan (2004) and Dennis (2005)), 950,000 cubic yards of sand was placed within a 5 km (2.1 mile) long portion of critically eroded beach in the West Destin portion of the APE (Enclosure 5) (FDEP 2020).

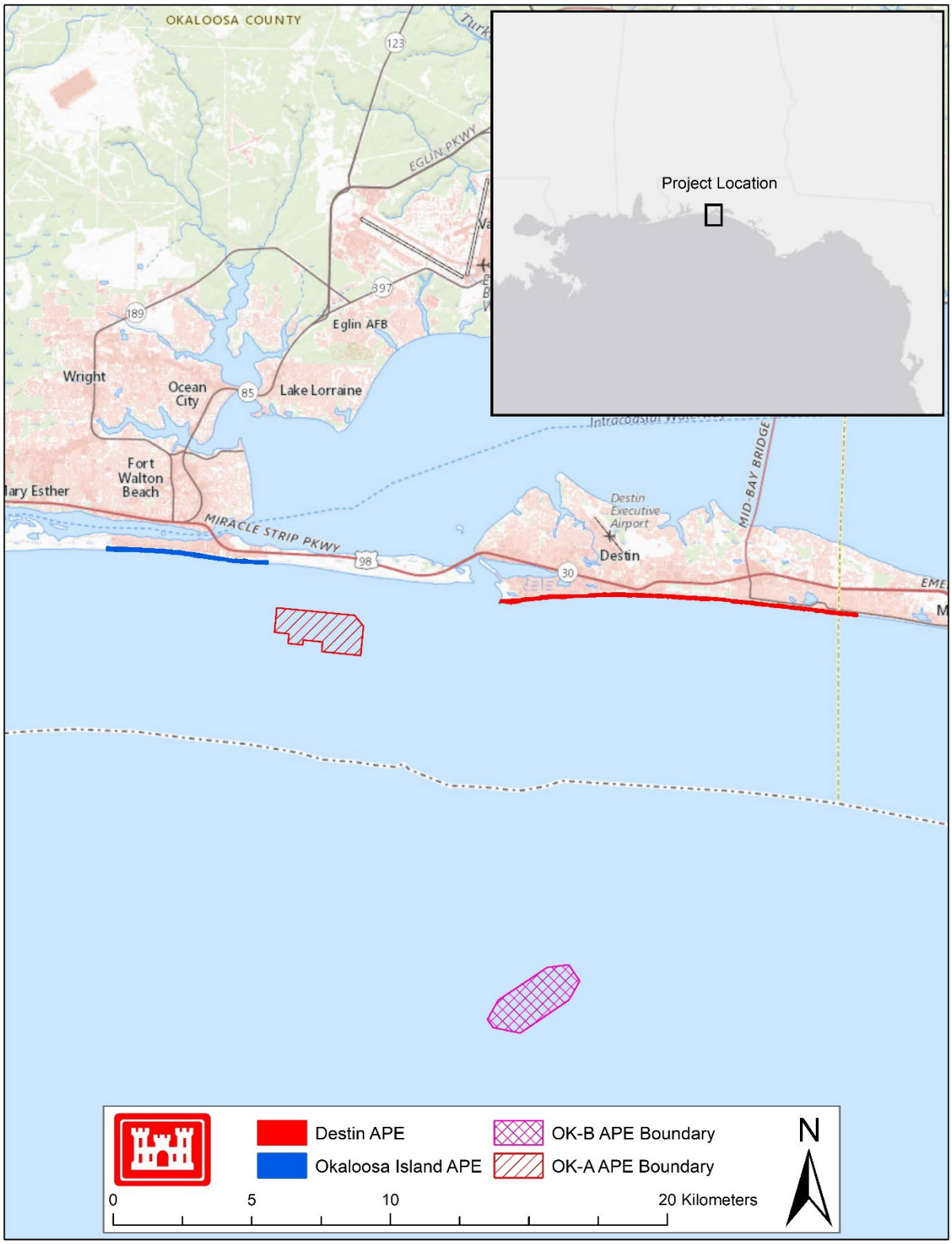
The shoreline portions of the APE are dynamic environments which are continuously changed and eroded by waves, tides, and storms. Frequent hurricanes in the region also constrained pre-Contact Native American settlement and use of the intertidal beach and upper beach and berm zones of the Gulf coast. These factors, along with modern development and previous renourishment projects suggest there is a low probability for the presence of pre-Contact archaeological sites within coastal areas of the Gulf. Also, terrestrial and marine archaeological surveys did not identify any cultural resources or historic properties within the APE. USACE, Mobile District has, therefore, determined that the proposed Project will result in **no historic properties affected**. We respectfully request any comments regarding the proposed APE and your concurrence on our determination of **no historic properties affected**. USACE, Mobile District is committed to making every effort to invite all parties with an interest in the Project and those agencies with responsibilities under Section 106 of the NHPA to participate. We have also sent letters to interest Federally Recognized Tribes and other interested parties. Please send any comments and questions regarding the Project to a district archaeologist, Dr. Patrick O'Day via email at Patrick.M.O'Day@usace.army.mil or via phone at (251) 690-2326.

Sincerely,

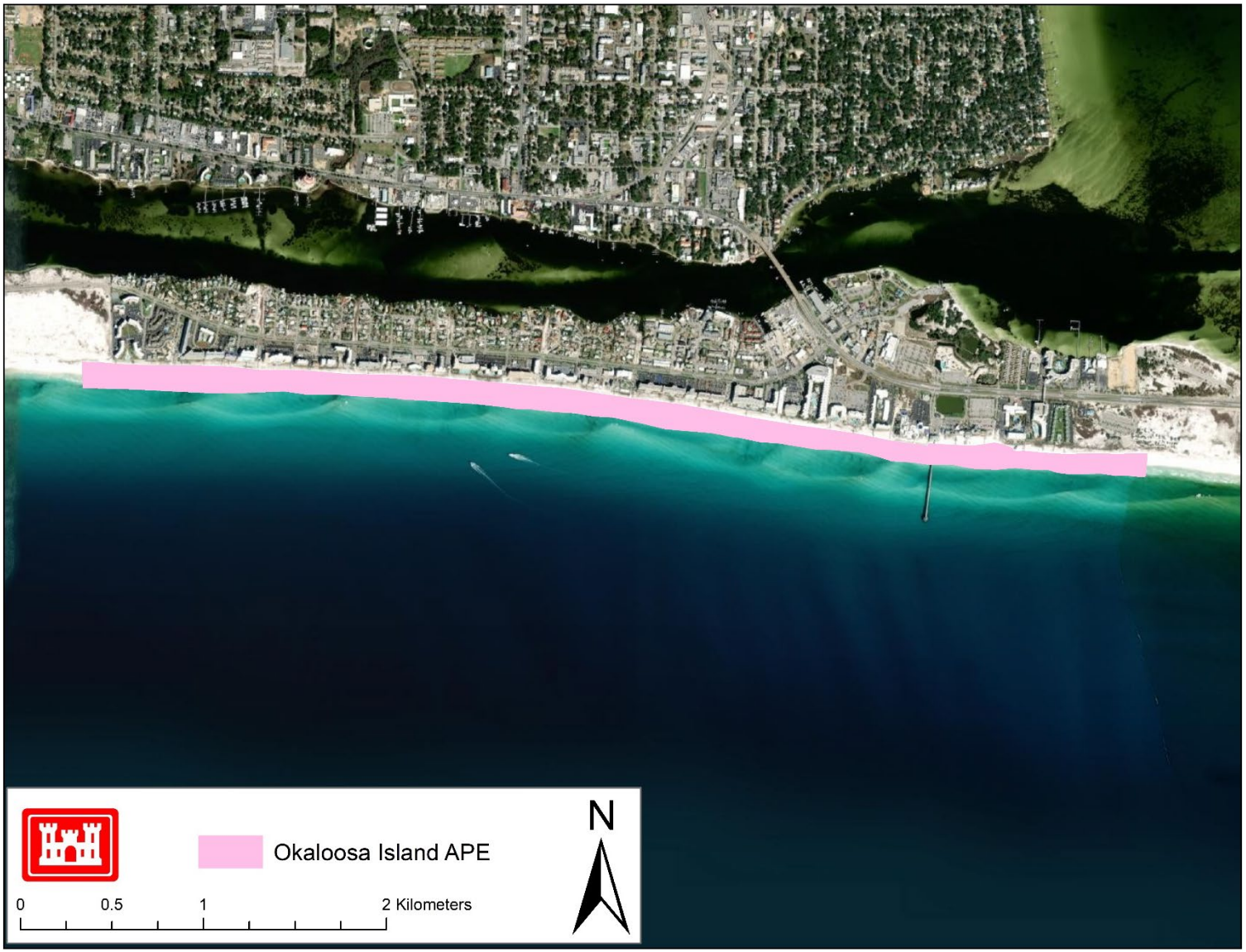
JACOBSON.JENNIFER.L.1230598386 Digitally signed by JACOBSON.JENNIFER.L.1230598386 Date: 2021.01.11 12:16:52 -06'00'

Jennifer L. Jacobson
Chief, Environment and Resources Branch

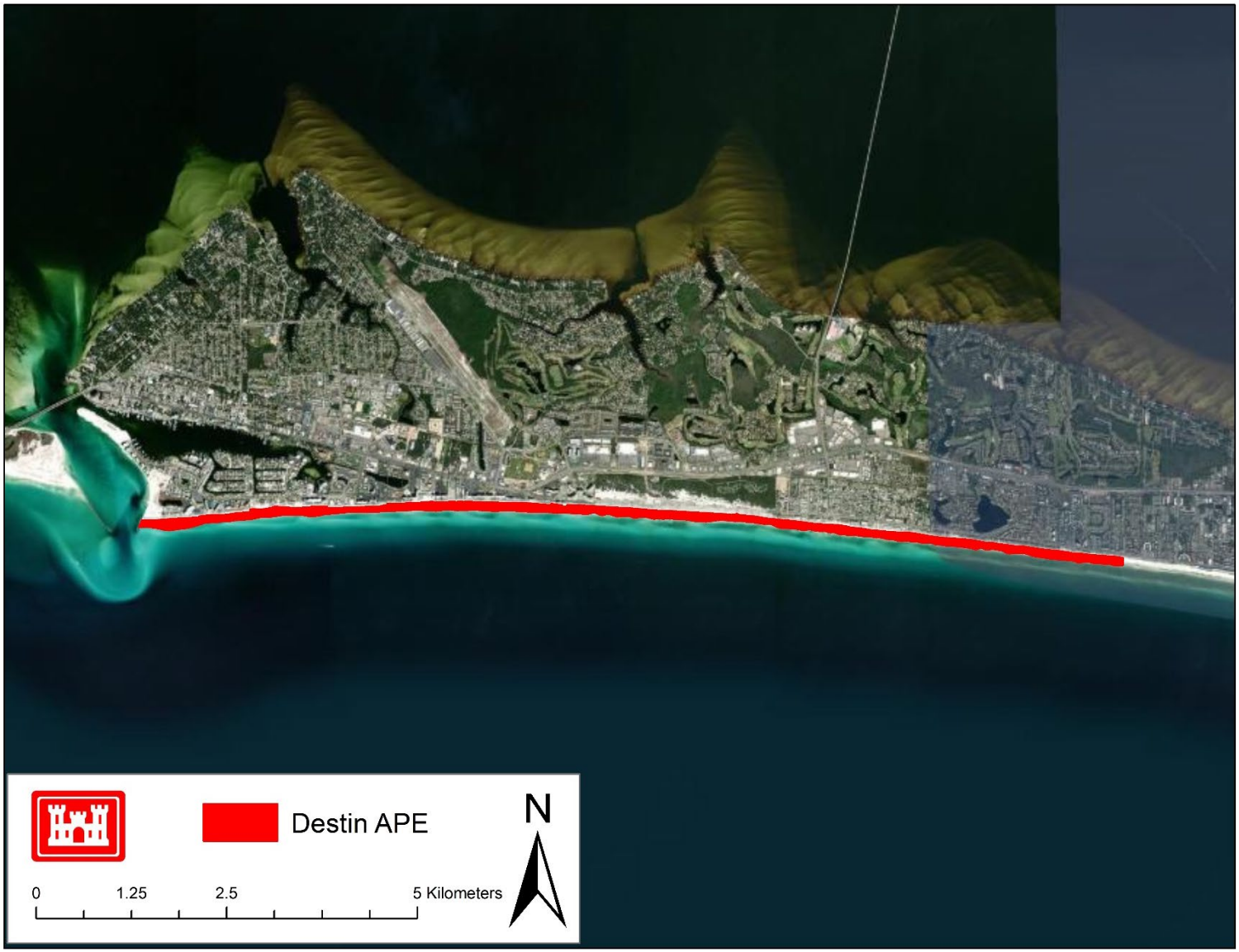
Enclosures



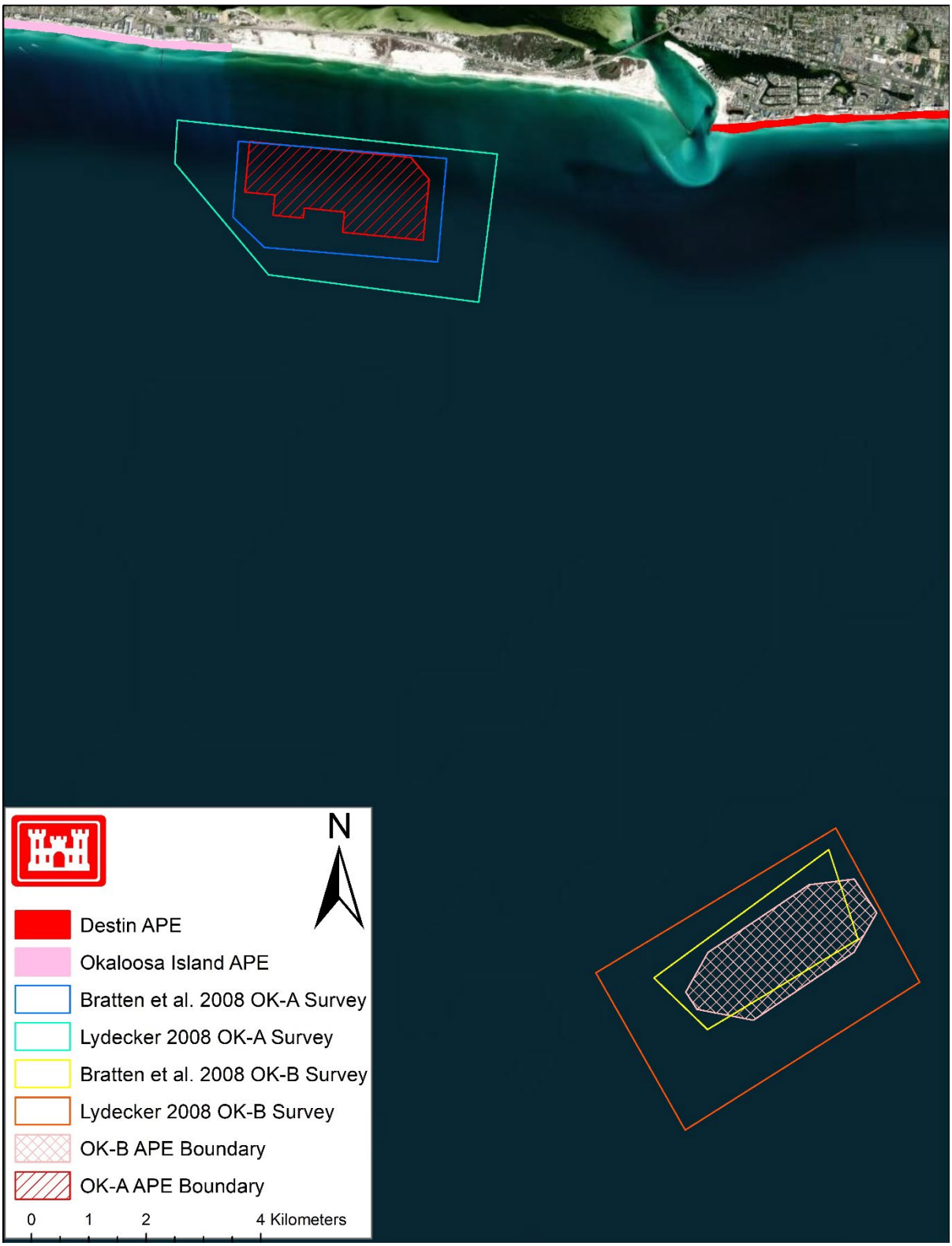
Enclosure 1. Project locator map showing coastline and offshore portions of APE



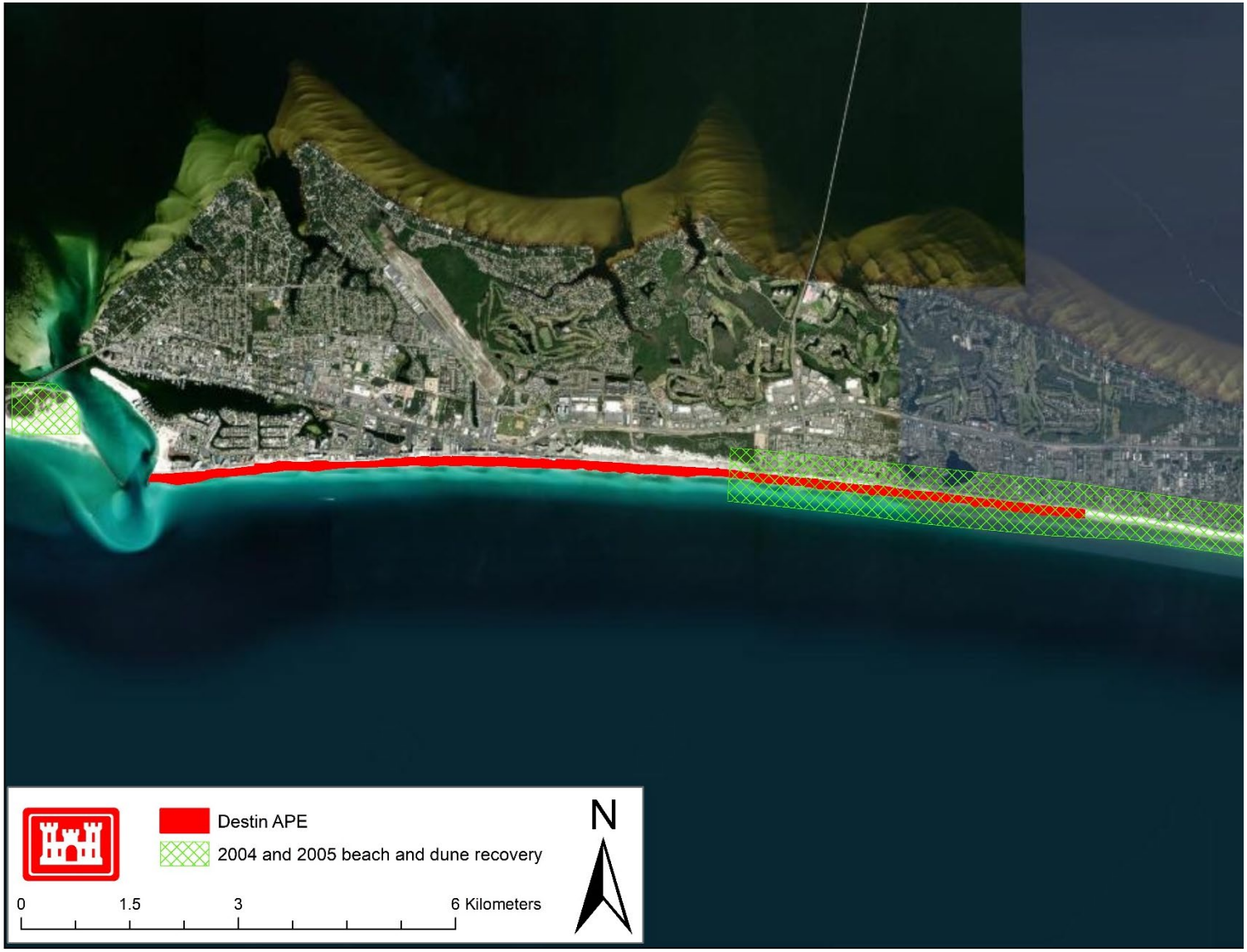
Enclosure 2



Enclosure 3


N
Destin APE
Okaloosa Island APE
Bratten et al. 2008 OK-A Survey
Lydecker 2008 OK-A Survey
Bratten et al. 2008 OK-B Survey
Lydecker 2008 OK-B Survey
OK-B APE Boundary
OK-A APE Boundary
0
1
2
4 Kilometers

Enclosure 4


Destin APE
2004 and 2005 beach and dune recovery
N
0
1.5
3
6 Kilometers

Enclosure 5

FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Patrick M. O'Day, Project Manager
U.S Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Al 36628-0001

February 4, 2021

RE: DHR Project File No.: 2021-0079, Received by DHR: January 13, 2021
Project: *Okaloosa County Storm Risk Management Feasibility Study*
County: Okaloosa

Dear Mr. O'Day:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places.* The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties.*

Our office concurs with USACE's determination that the proposed activities is unlikely to affect historic properties. However, the permit, if issued, should include the following special condition regarding unexpected discoveries:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

If you have any questions, please contact Michael DuBose, Historic Sites Specialist, by email at *Michael.DuBose@dos.myflorida.com* or by telephone at 850.245.6342.

Sincerely,

For
Timothy A Parsons, Ph.D.
Director, Division of Historical Resources & State Historic Preservation Officer

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

January 11, 2021

Inland Environment Team
Planning and Environmental Division

Mr. Billie Cypress
Chairman
Miccosukee Tribe of Indians of Florida
HC 61, SR68 Old Loop Road
Ochopee, Florida 34141

Dear Chairman Cypress:

The U.S. Army Corps of Engineers, (USACE), Mobile District is writing to consult on the Okaloosa County Storm Risk Management Feasibility Study (Project) to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (Section 106; 54 USC 306108). The proposed Project will involve the placement of sand along sections of the Gulf coast in Okaloosa County to build berms and dunes for storm surge protection. USACE, Mobile District has also established the Area of Potential Effect (APE) for the Project and maps are enclosed for your review and comment (Enclosures 1 - 4). Background research conducted by USACE, Mobile District indicated that archaeological surveys of the Okaloosa Island and West Destin shorelines and marine remote sensing surveys of the borrow areas (OK-A and OK-B) for the proposed Project did not identify any historic properties within the proposed APE. USACE, Mobile District has therefore determined that the proposed Project will result in **no historic properties affected** according to 36 CFR § 800.4[d][1]. Division B, Subdivision 1, Title IV of the Bipartisan Budget Act (BBA) of 2018 (Public Law 115-123), authorizes USACE, Mobile District to conduct this study at full federal expense to the extent that appropriations provided under the Investigations heading of the 2018 BBA are available and used for such a purpose.

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beaches. These beach renourishment projects pumped sand obtained from dredging navigation channels and other offshore borrow areas onto eroded beaches to build up former dunes, upper beach areas, and nearshore zones (Wharton et al. 2014:2-20). In 2006 (following impacts of hurricanes Ivan (2004) and Dennis (2005)), 950,000 cubic yards of sand was placed within a 5 km (2.1 mile) long portion of critically eroded beach in the West Destin portion of the APE (Enclosure 5) (FDEP 2020).

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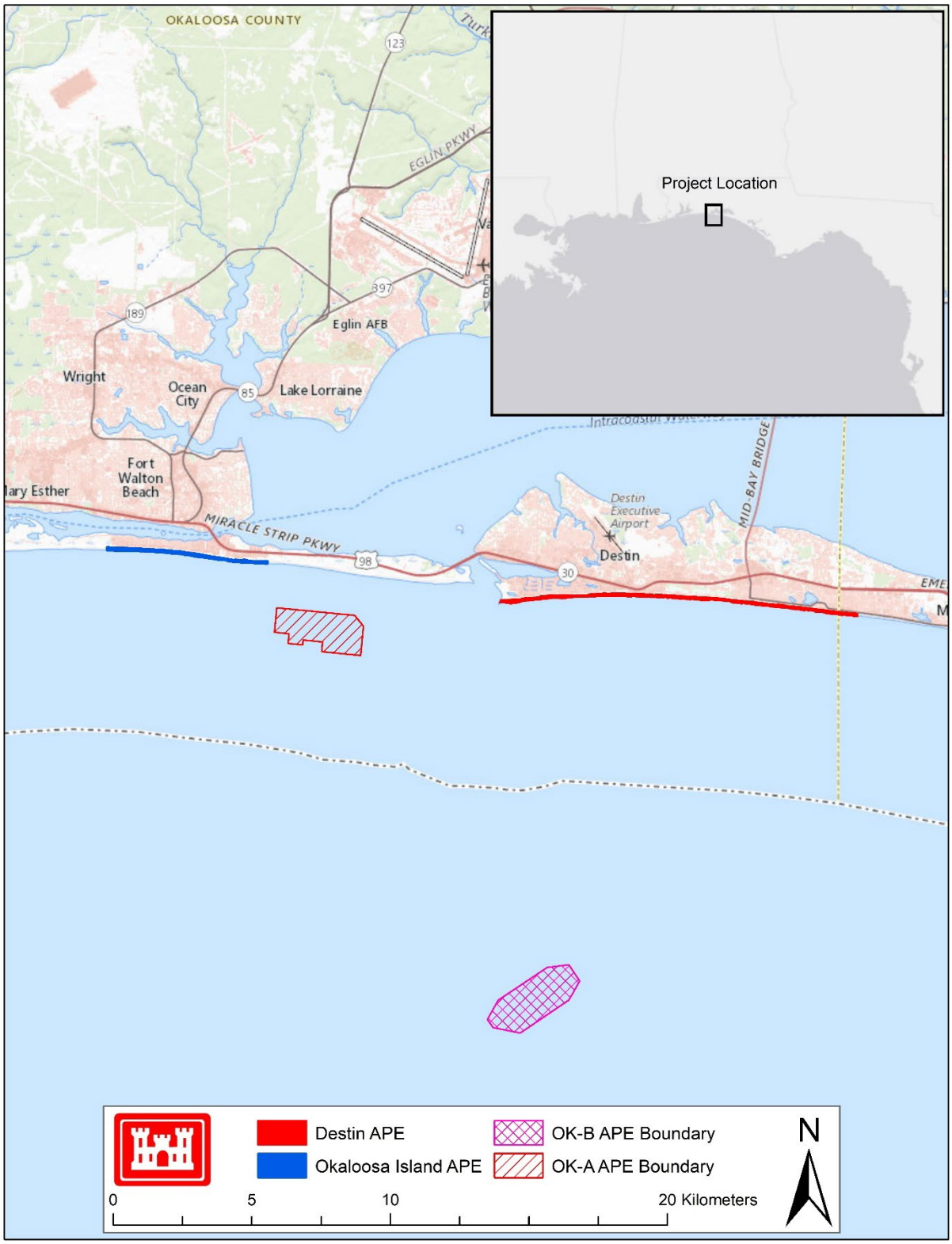
Sincerely,

LADART.JEREMY.M.1258164799 Digitally signed by LADART.JEREMY.M.1258164799 Date: 2021.01.11 10:09:54 -06'00'

Jeremy M. LaDart
Chief, Planning and Environmental Division

Enclosures



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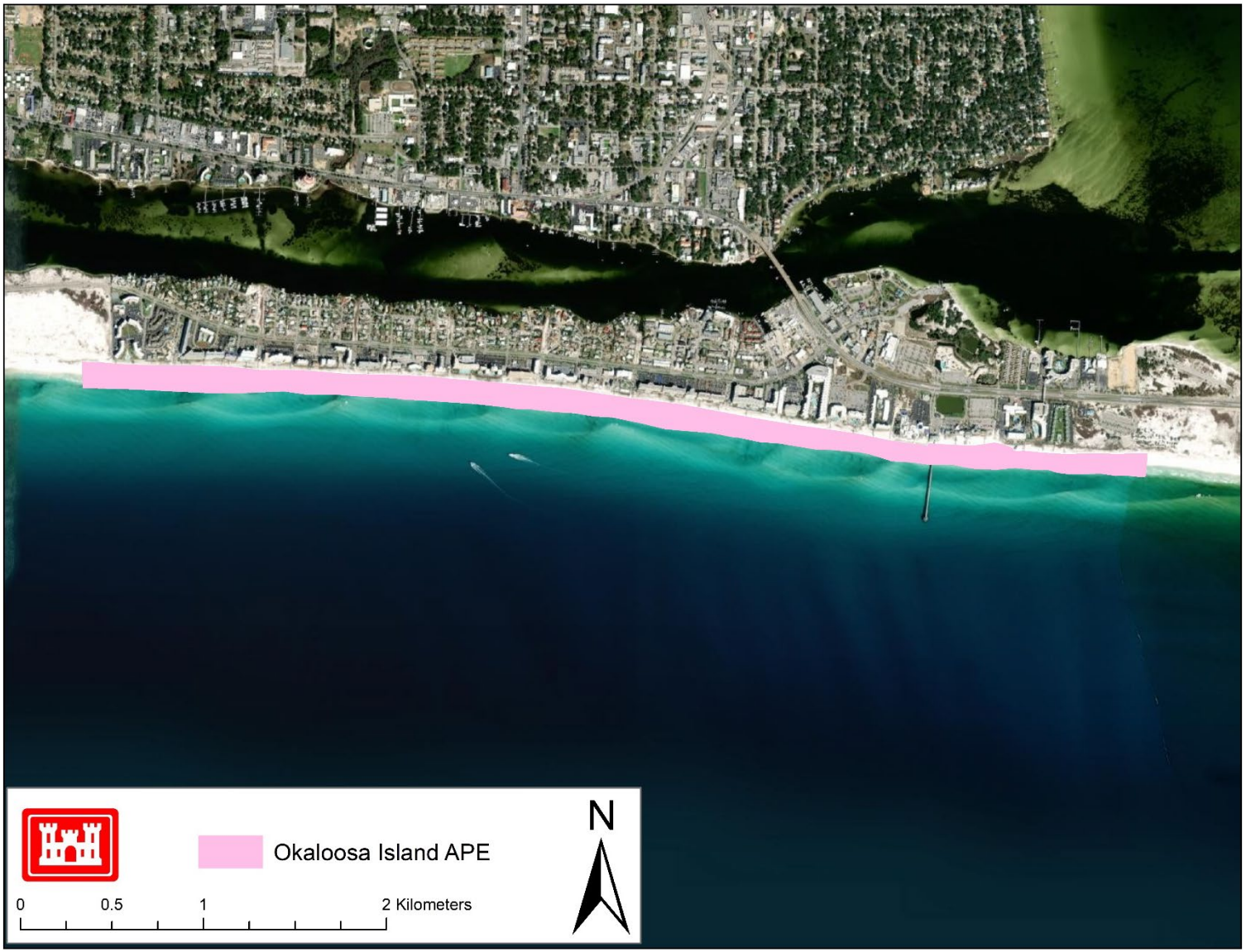
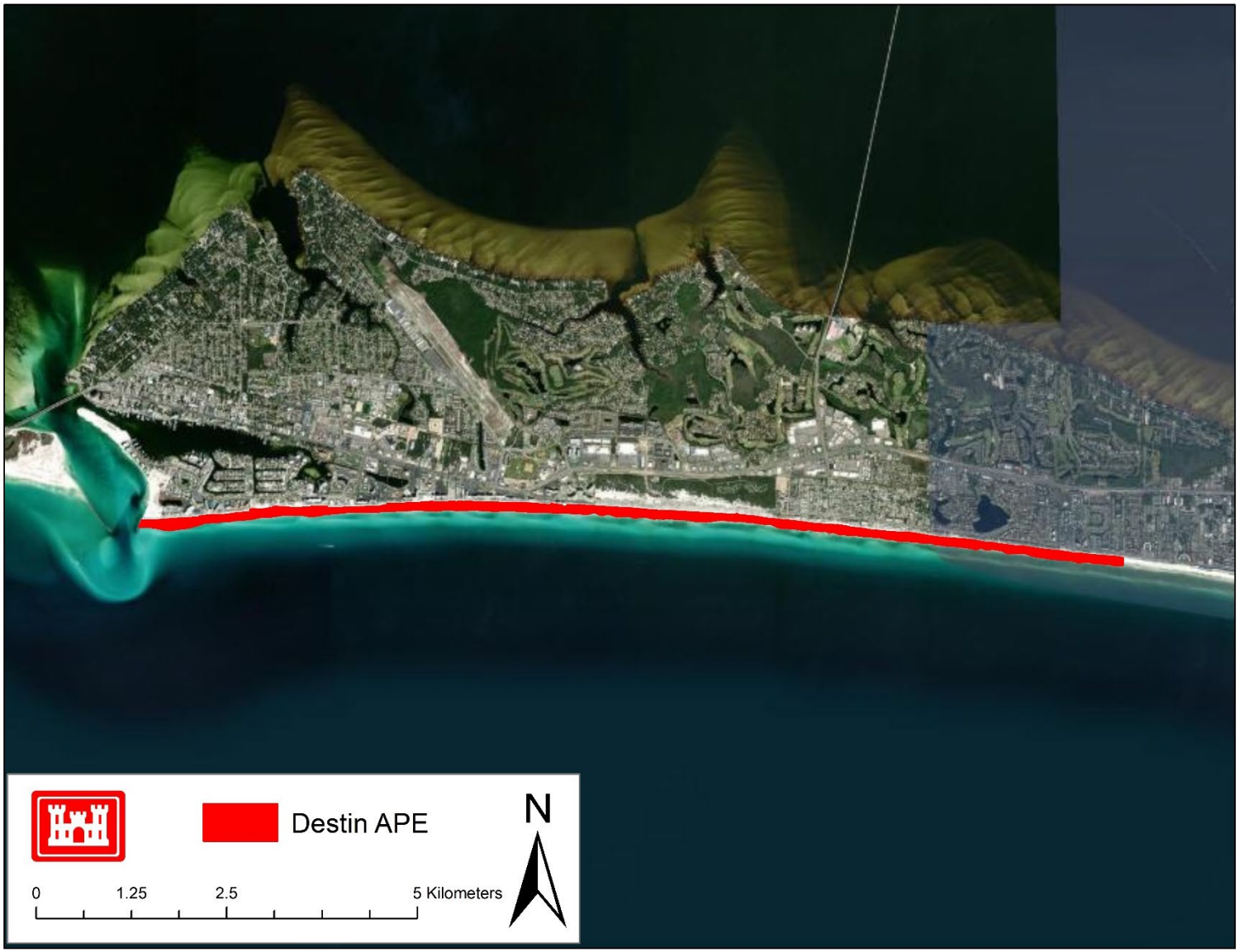
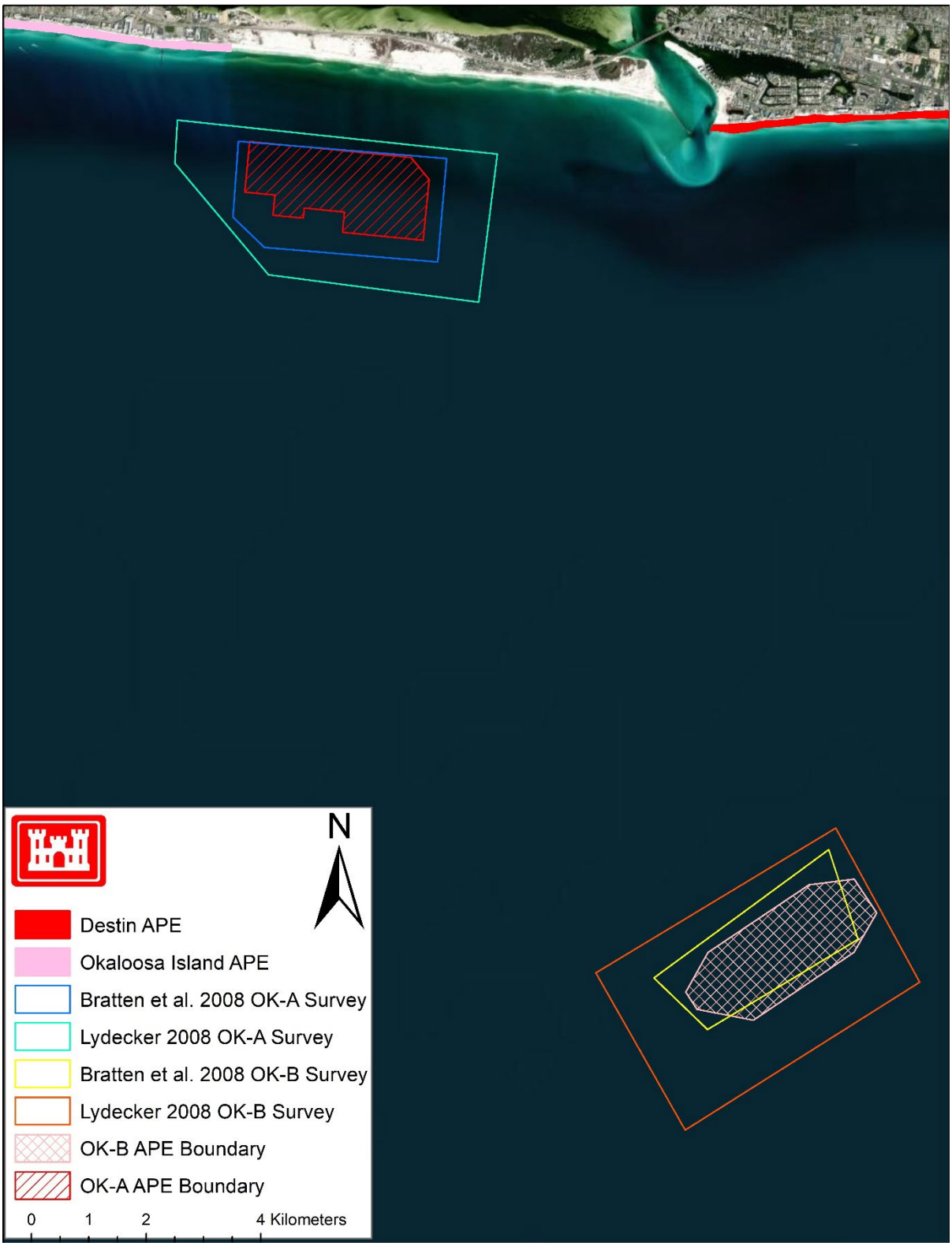


Enclosure 2



Enclosure 3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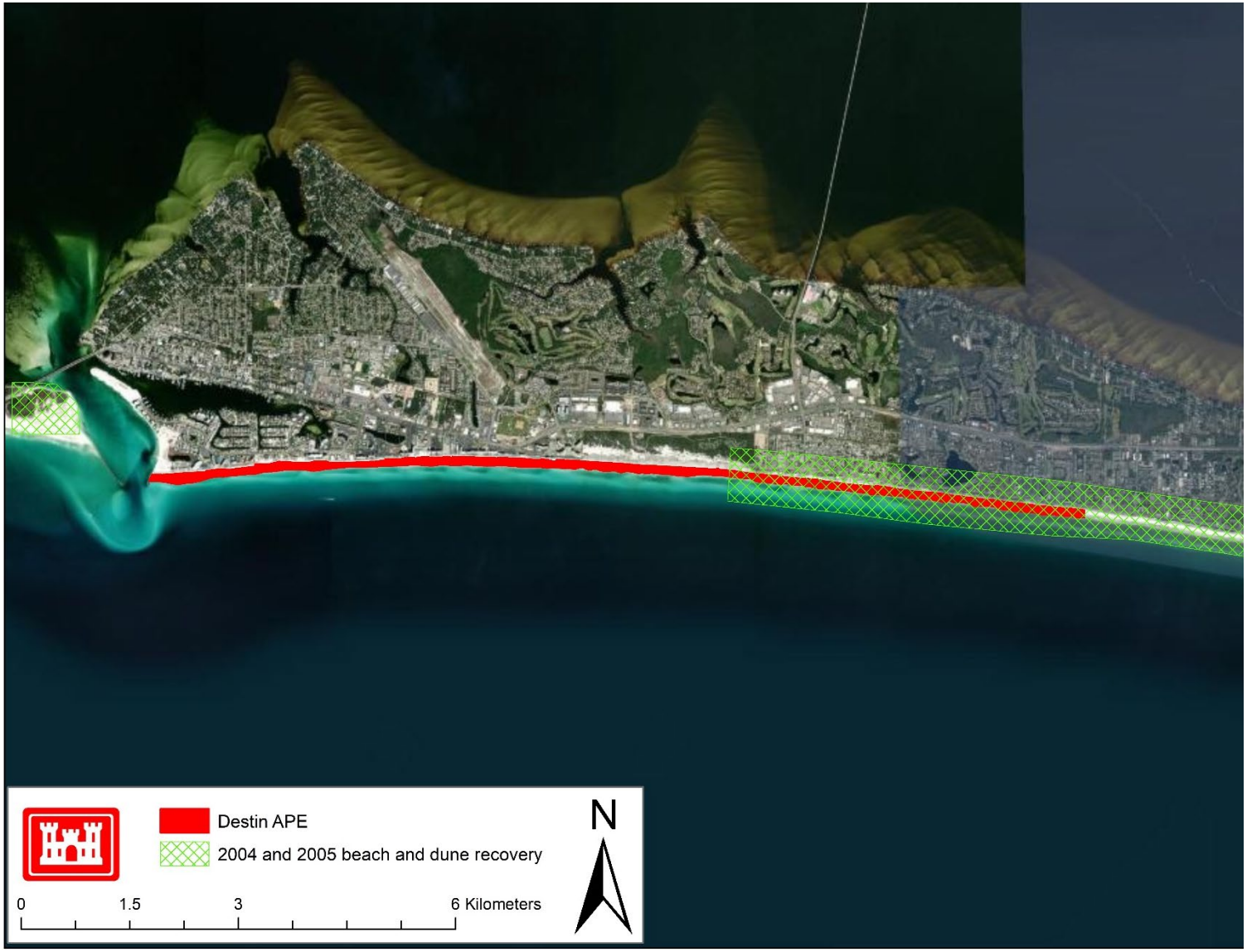
Enclosure 4


Destin APE
2004 and 2005 beach and dune recovery
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Enclosure 5

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

January 11, 2021

REPLY TO
ATTENTION OF

Inland Environment Team
Planning and Environmental Division

Ms. Corain Lowe-Zepeda
Tribal Historic Preservation Officer
Muscogee (Creek) Nation
Post Office Box 580
Okmulgee, Oklahoma 74447

Dear Ms. Lowe-Zepeda:

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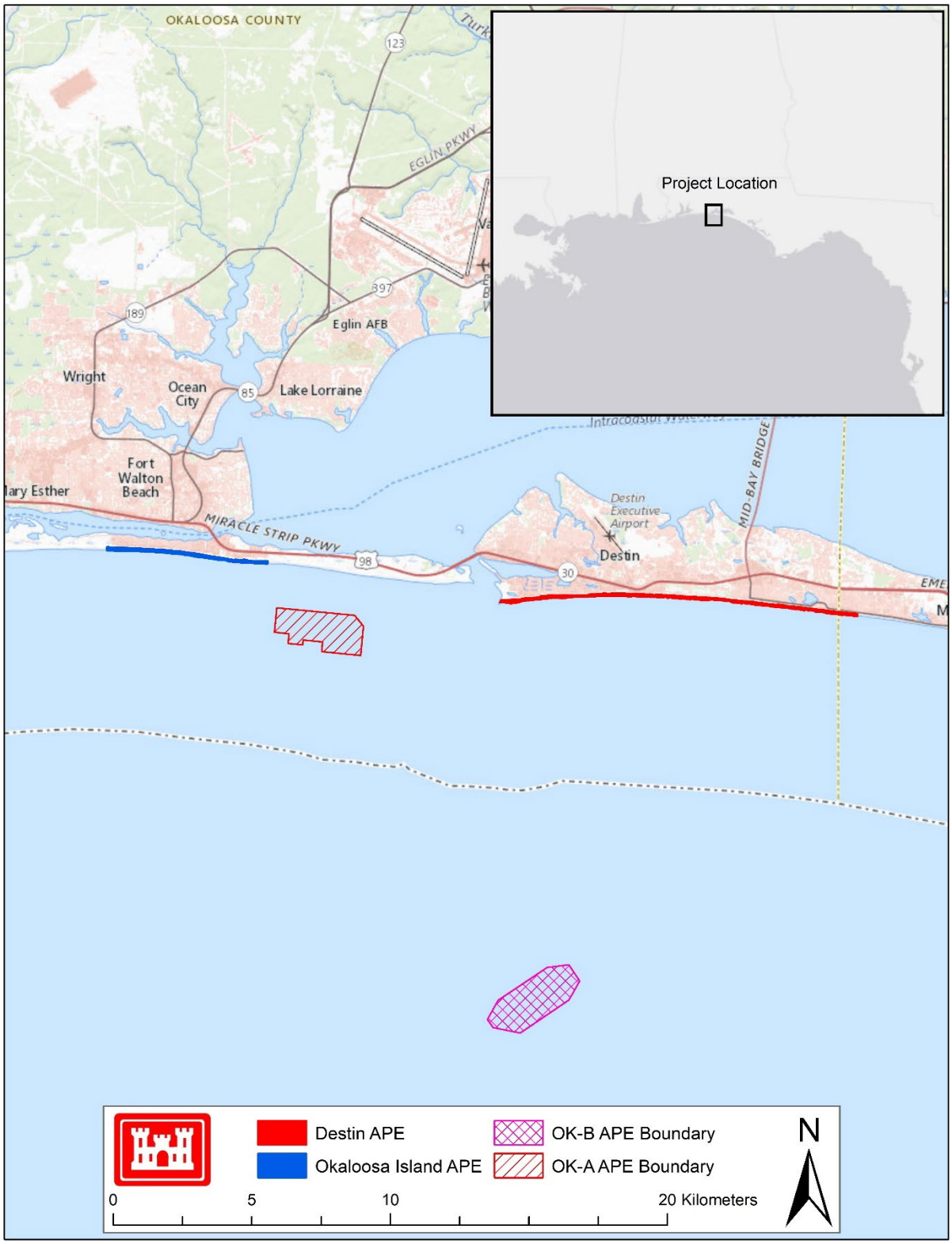
Jeremy M. LaDart
Chief, Planning and Environmental Division

Enclosures



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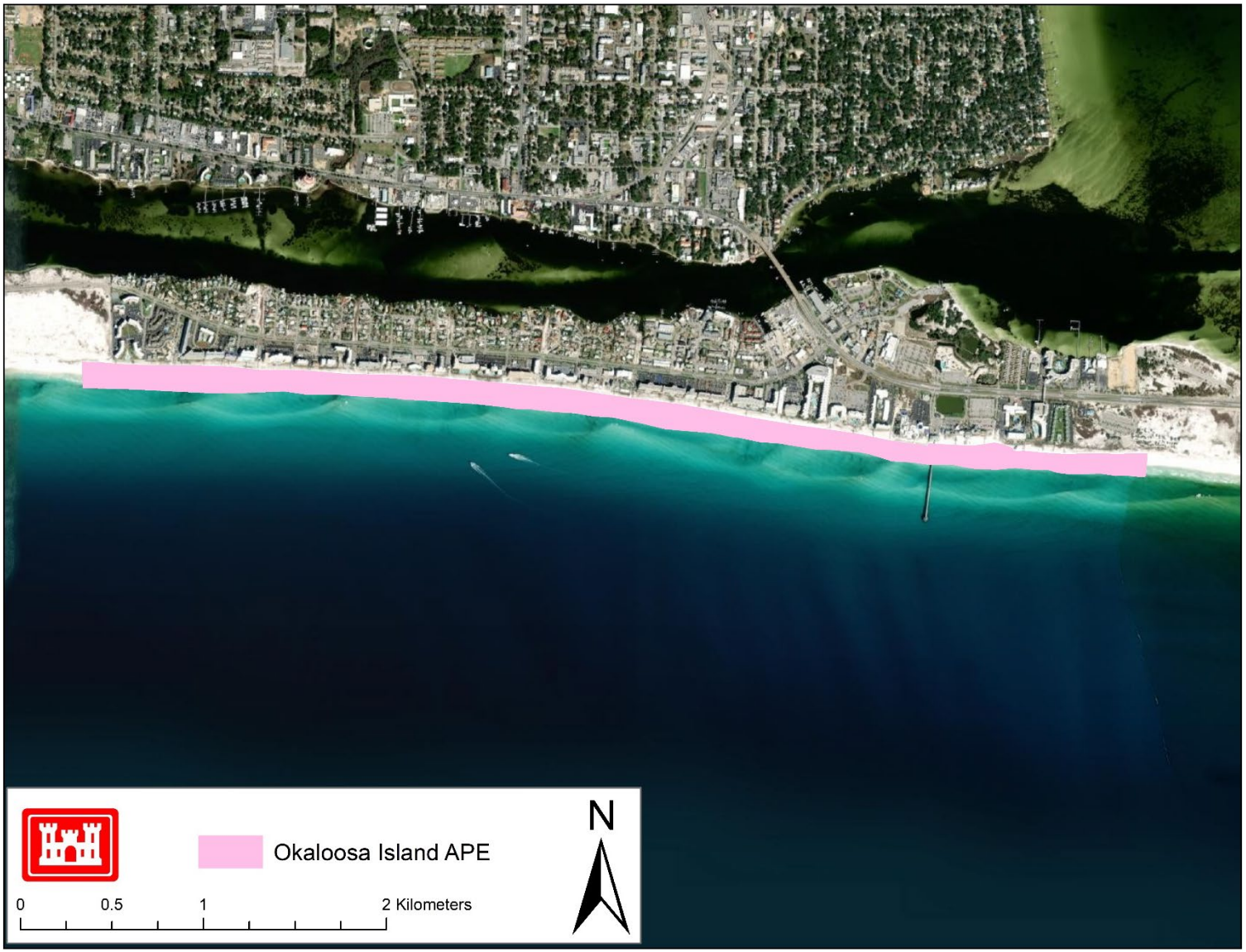
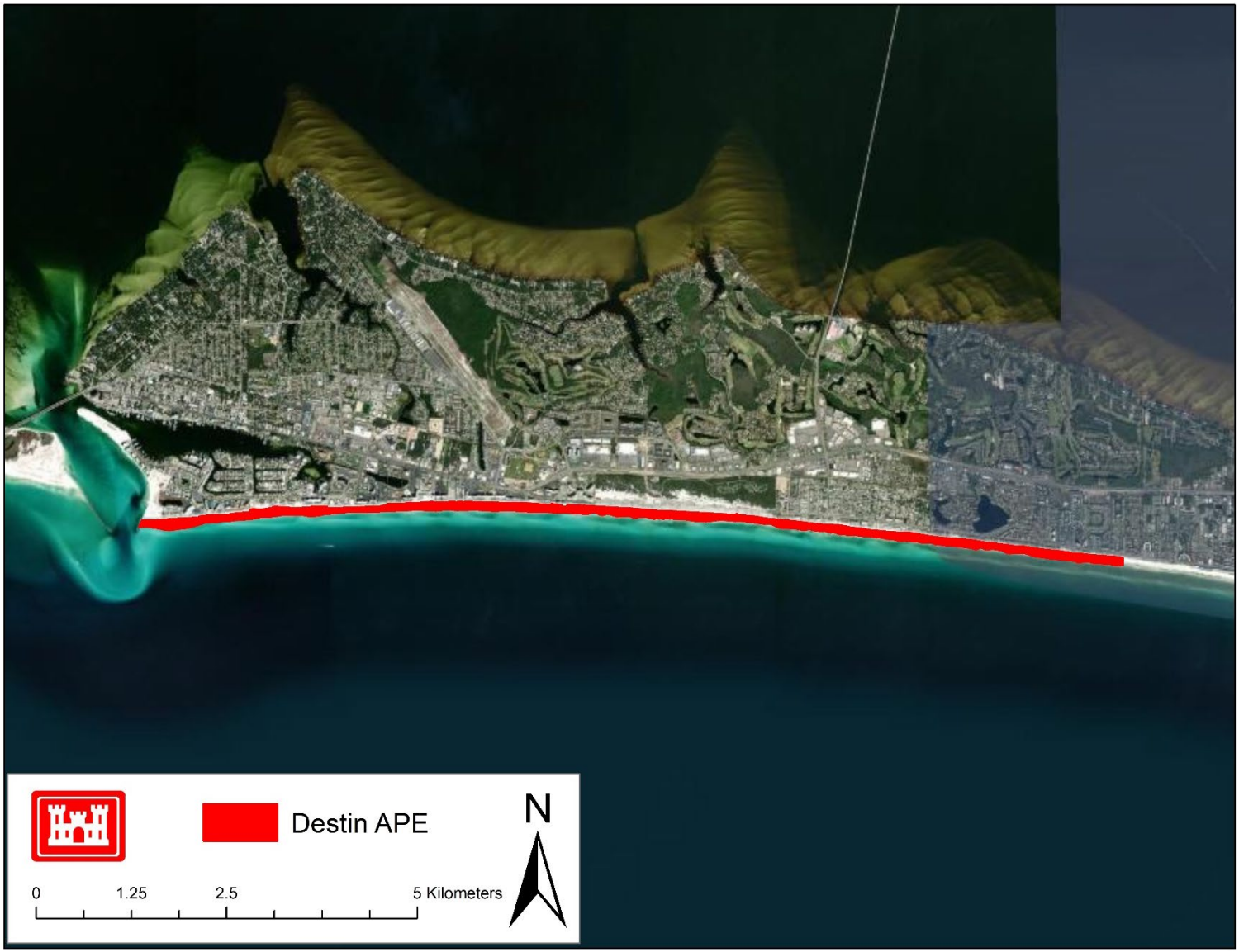


Enclosure 2



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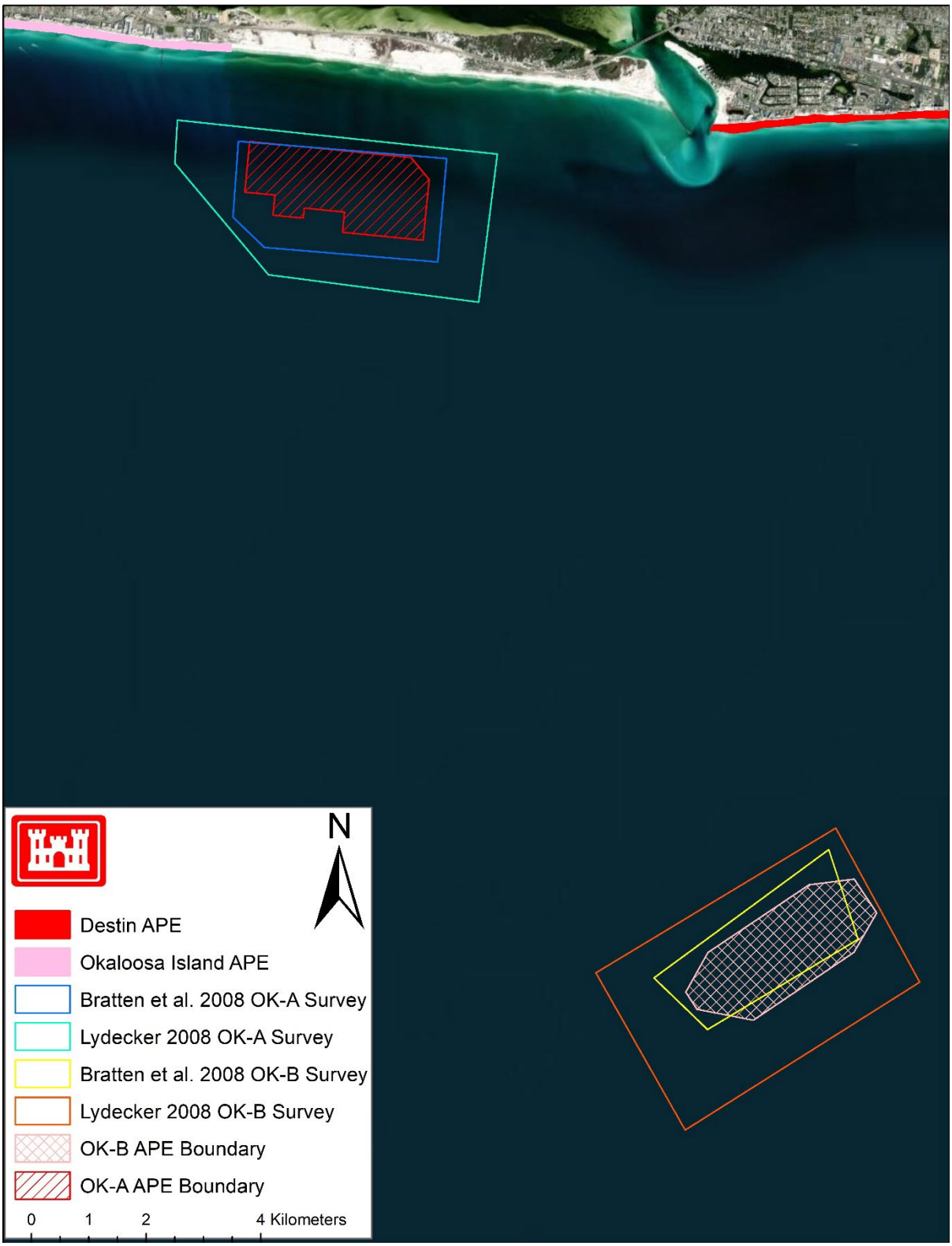
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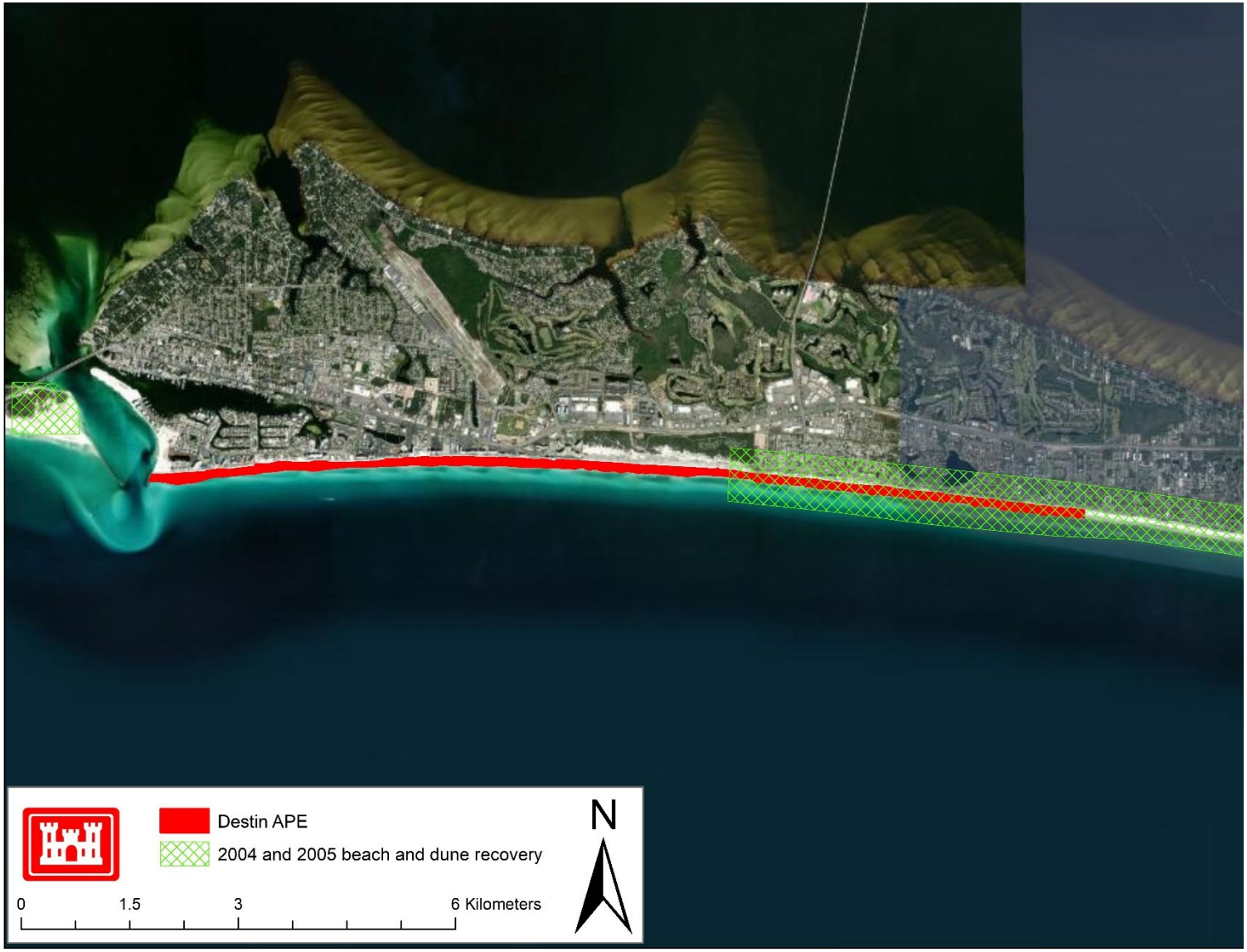
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2004 and 2005 beach and dune recovery
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Enclosure 5

O'DAY, Patrick Michael CIV USARMY CESAM (USA)

From: Section106 <Section106@mcn-nsn.gov>
Sent: Tuesday, February 23, 2021 11:25 AM
To: O'DAY, Patrick Michael CIV USARMY CESAM (USA)
Subject: [Non-DoD Source] Re: Okaloosa County Storm Risk Management Feasibility Study

Good morning Dr. O'Day,

Thank you for sending the correspondence regarding the proposed placement of sand along sections of the Gulf Coast in Okaloosa County, Florida. Okaloosa County is located within the Muscogee (Creek) Nation's historic area of interest and is of importance to us. After review, the Muscogee Nation is unaware of any Muscogee sacred sites, burial grounds, or significant cultural resources located within the immediate project area. The Muscogee Nation concurs that there should be **no effects to any known historic properties** and that work should continue as planned. However, due to the historic presence of Muscogee people in the project area, inadvertent discoveries of cultural resources, human remains and related NAGPRA items may occur, even in areas of existing or prior development. Should this occur, the Muscogee (Creek) Nation requests that all work cease and our office as well as other appropriate agencies be notified immediately. Please feel free to contact me if there are any questions or concerns.

Thank you,

Robin Soweka Jr.
Historic and Cultural Preservation Department | Cultural Resource Specialist
Muscogee (Creek) Nation
P.O. Box 580 | Okmulgee, OK 74447
T 918.732.7726
F 918.758.0649
http://www.muscogeenation-nsn.gov/

From: O'DAY, Patrick Michael CIV USARMY CESAM (USA) <Patrick.M.O'Day@usace.army.mil>
Sent: Wednesday, January 13, 2021 3:40 PM
To: Section106 <Section106@mcn-nsn.gov>
Subject: Okaloosa County Storm Risk Management Feasibility Study

Dear Ms. Lowe-Zepeda,

I hope this email finds you well!

I have attached a letter regarding Section 106 consultation for the proposed Okaloosa County Storm Risk Management Project. the letter provides a description of the Undertaking, a description and maps of the area of potential effect, and a proposed determination of no historic properties affected. Please review the letter and let me know if you require any additional information regarding the project. Thank you,

Sincerely,

Patrick O'Day

Patrick O'Day, PhD

Archaeologist
US Army Corps of Engineers
Planning & Inland Environmental Division
109 St. Joseph Street
Mobile, Alabama 36602
☎(251)690-2326
Cell(251)604-2159

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

January 11, 2021

REPLY TO
ATTENTION OF

Inland Environment Team
Planning and Environmental Division

Ms. Carolyn M. White
Tribal Historic Preservation Officer
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, Alabama 36502

Dear Ms. White:

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Jeremy M. LaDart
Chief, Planning and Environmental Division

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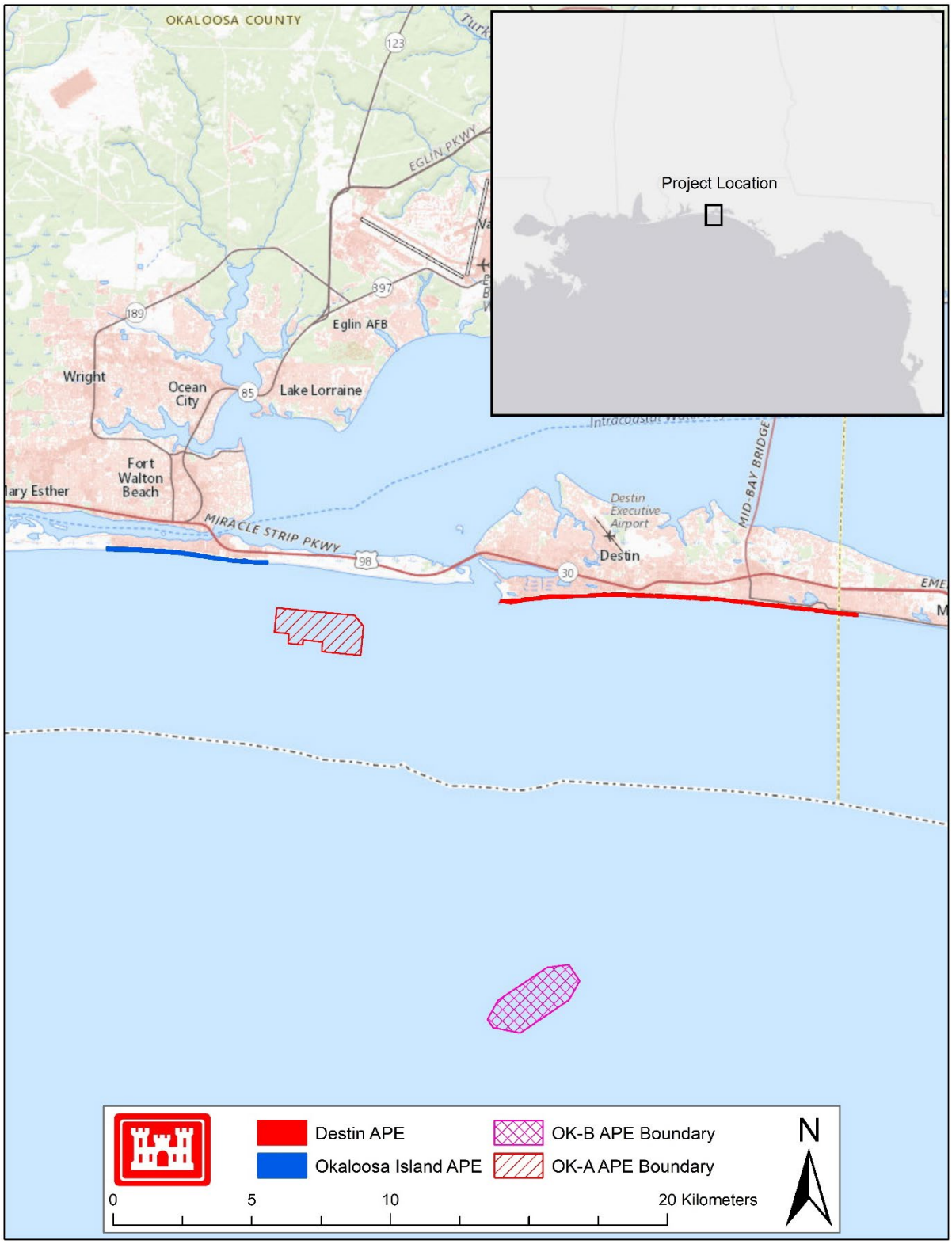

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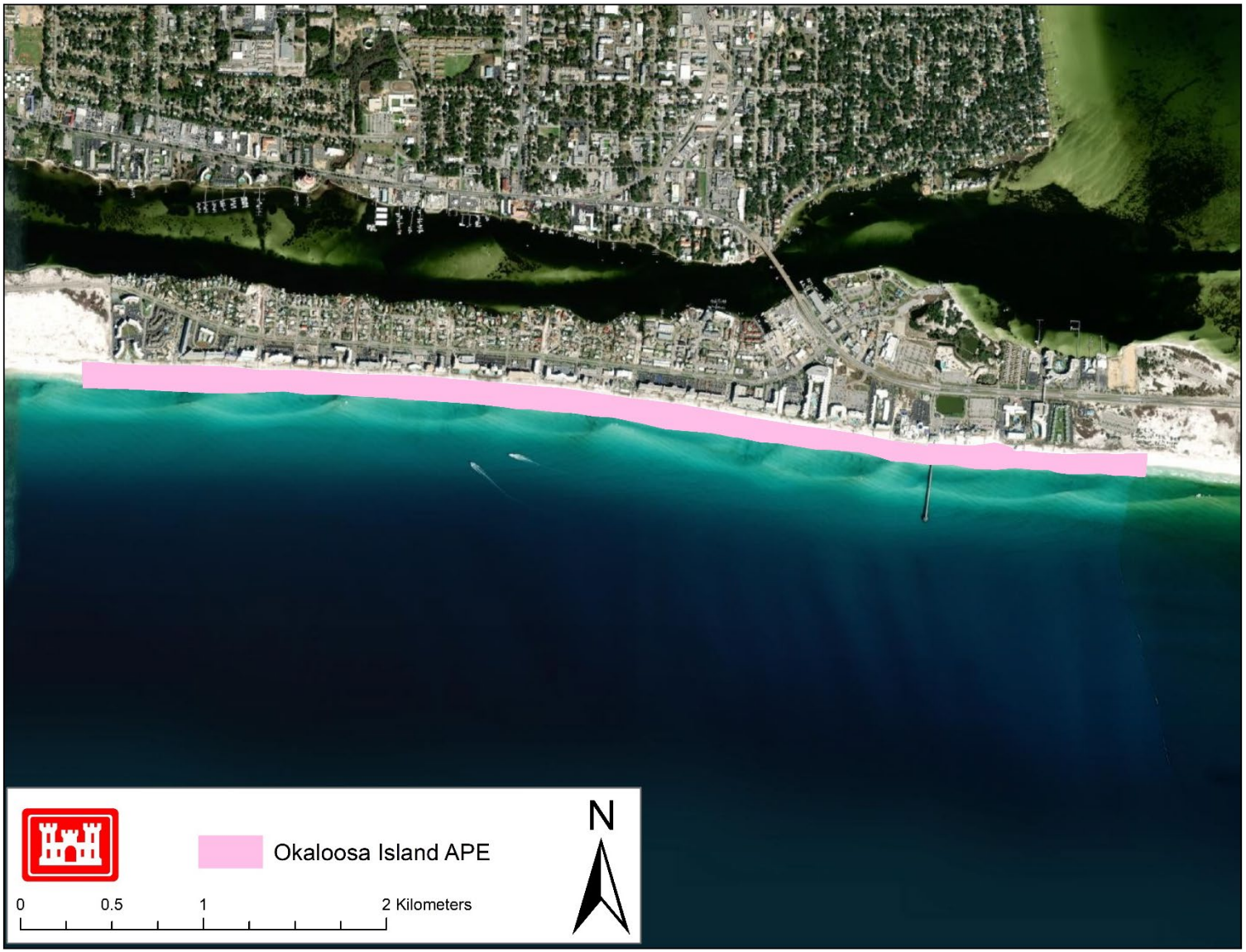

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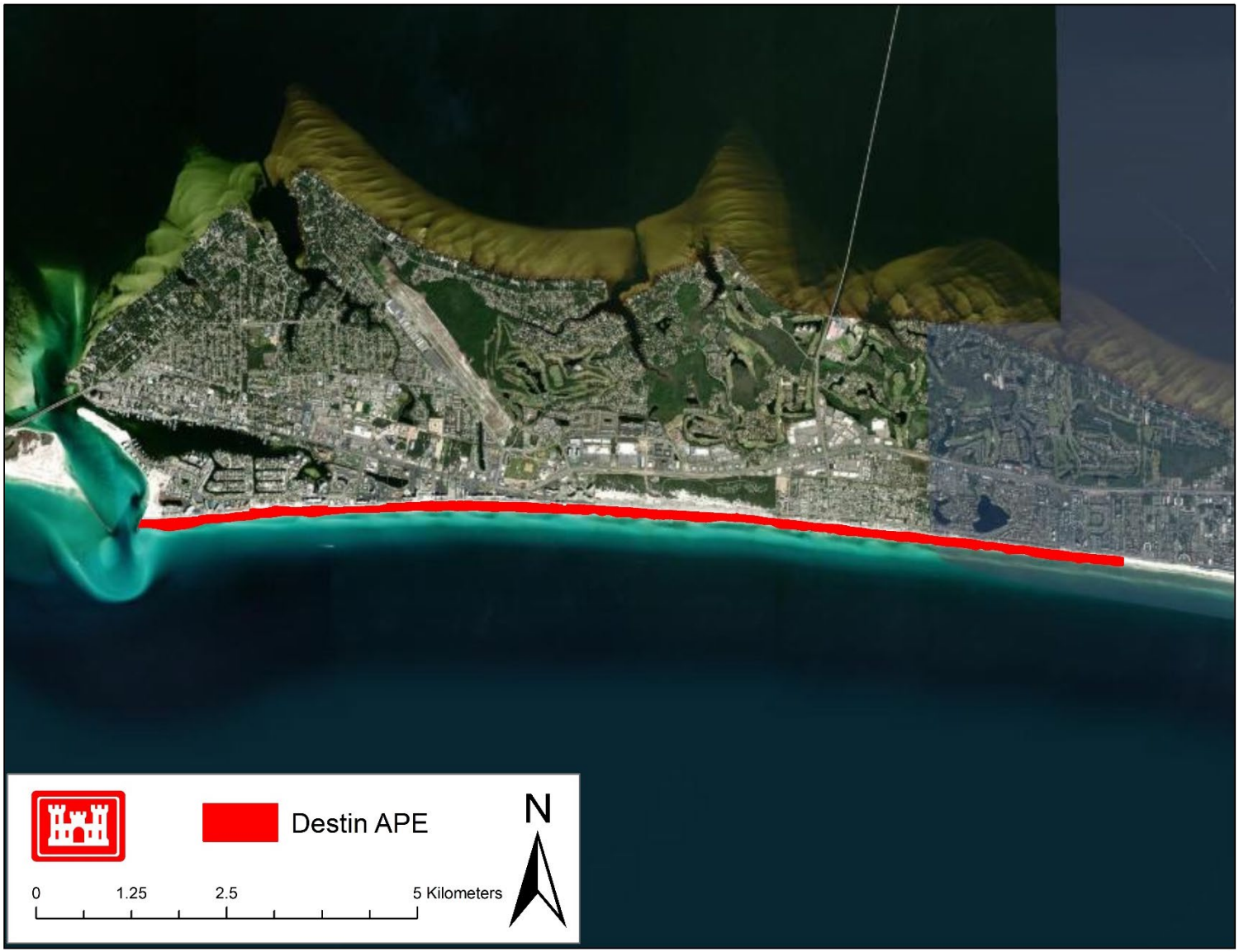
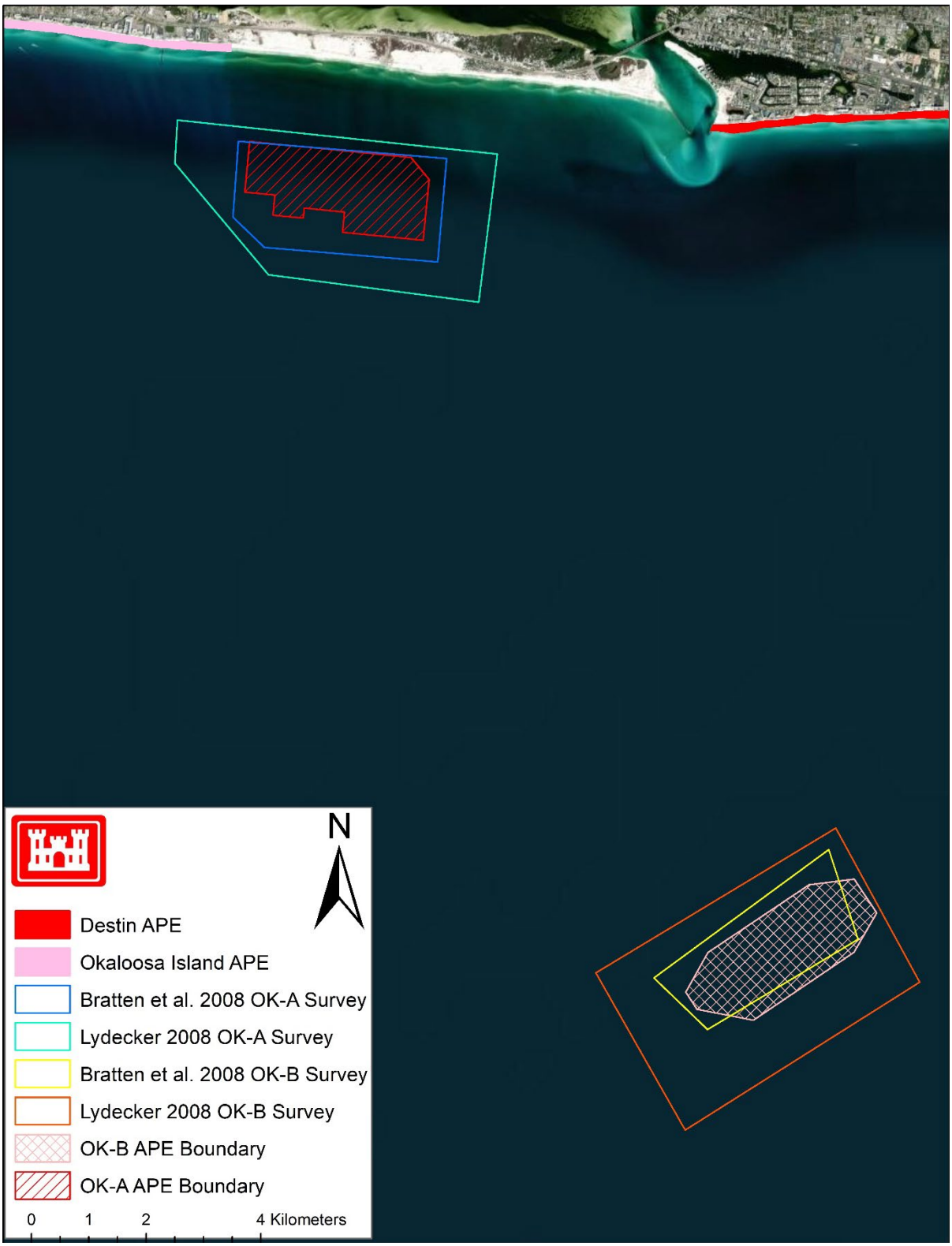


Enclosure 3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OK-B APE Boundary
OK-A APE Boundary
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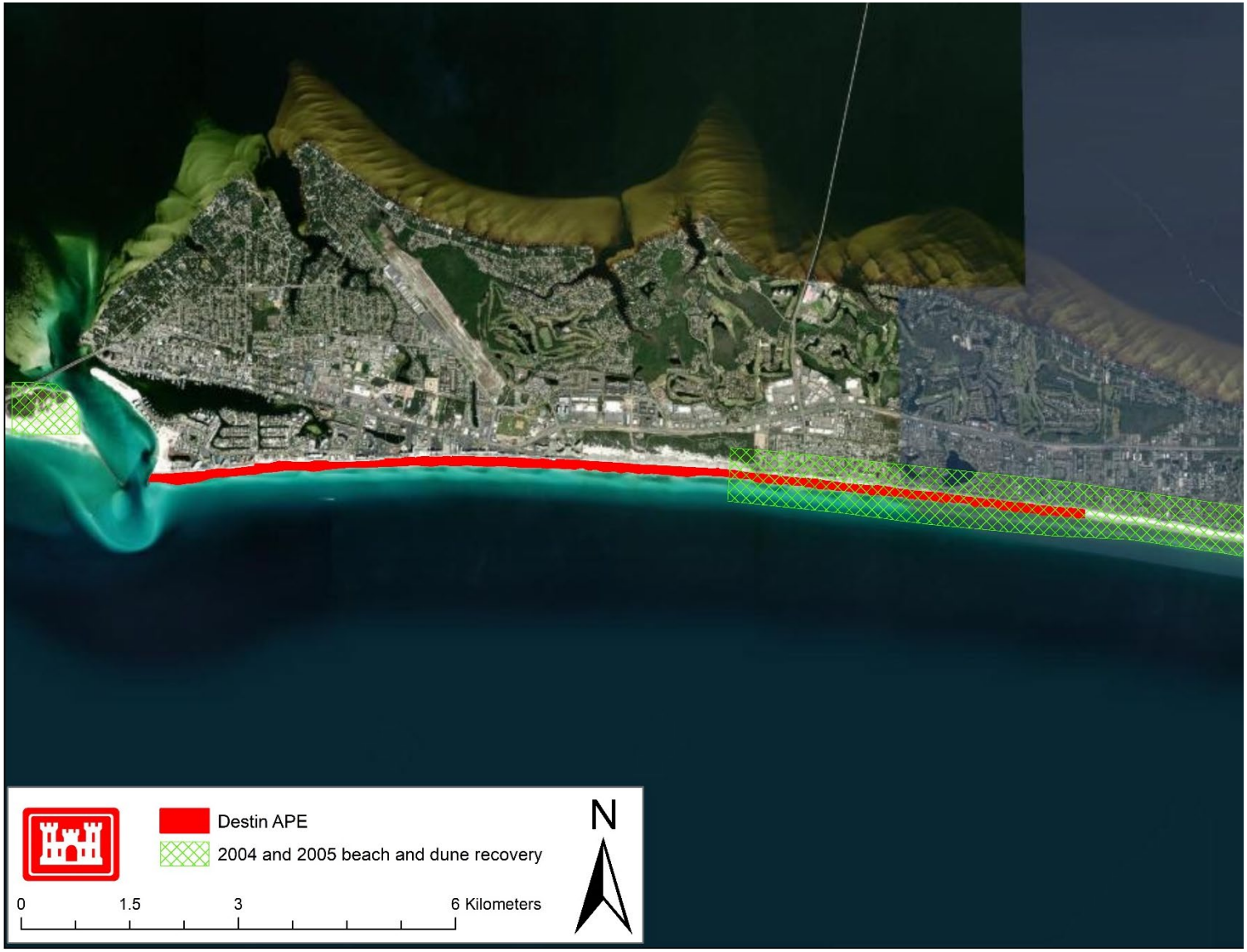
Enclosure 4


Destin APE
2004 and 2005 beach and dune recovery
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6 Kilometers

Enclosure 5

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

January 11, 2021

REPLY TO
ATTENTION OF

Inland Environment Team
Planning and Environmental Division

Mr. Thedore Isham
Tribal Historic Preservation Officer
Seminole Nation of Oklahoma
Post Office Box 1498
Wewoka, Oklahoma 74884

Dear Mr. Isham:

The U.S. Army Corps of Engineers, (USACE), Mobile District is writing to consult on the Okaloosa County Storm Risk Management Feasibility Study (Project) to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (Section 106; 54 USC 306108). The proposed Project will involve the placement of sand along sections of the Gulf coast in Okaloosa County to build berms and dunes for storm surge protection. USACE, Mobile District has also established the Area of Potential Effect (APE) for the Project and maps are enclosed for your review and comment (Enclosures 1 - 4). Background research conducted by USACE, Mobile District indicated that archaeological surveys of the Okaloosa Island and West Destin shorelines and marine remote sensing surveys of the borrow areas (OK-A and OK-B) for the proposed Project did not identify any historic properties within the proposed APE. USACE, Mobile District has therefore determined that the proposed Project will result in **no historic properties affected** according to 36 CFR § 800.4[d][1]. Division B, Subdivision 1, Title IV of the Bipartisan Budget Act (BBA) of 2018 (Public Law 115-123), authorizes USACE, Mobile District to conduct this study at full federal expense to the extent that appropriations provided under the Investigations heading of the 2018 BBA are available and used for such a purpose.

The proposed Project comprises construction of dunes and beach berms which will measure 14 foot (ft) high and 10 ft to 30 ft wide along stretches of Okaloosa Island and West Destin coastlines, respectively. Sand for the construction of the dunes and beach berms will be dredged from borrow sites OK-A and OK-B. The beach dune and berm construction areas on Okaloosa Island and in West Destin and the boundaries of borrow sites OK-A and OK-B comprise the APE for the proposed Project (Enclosure 1). The Okaloosa Island portion of the APE covers 50 hectares (ha) (124 acres) and is 5.8 kilometers (km) (3.6 miles) long and averages 115 meters (m) (377 ft) wide (Enclosure 2). The West Destin APE covers 99 ha (245 acres), is 12.9 km (8 miles) long and averages 117.4 m (385.2 ft) wide (Enclosure 3). OK-A is located 2.4 km (1.5 miles) south of Okaloosa Island, covers 284 ha (702 acres), and contains approximately 5.1 million cubic yards (mcy) of usable sand. OK-B is 11.3 km (7 miles) off of the Destin coastline, covers 326 ha (806 acres), and contains 6.4 mcy of usable sand (Enclosures 3─4).

Archaeological surveys of both the Okaloosa Island and West Destin shoreline portions of the APE were conducted in support of the Deepwater Horizon Oil Spill Response in the State of Florida between June 2010 and June 2013. Borrow areas OK-A and OK-B were also subjected to remote sensing, diver evaluation, and monitoring investigations in 2007. The survey of the Okaloosa Island and West Destin portions of the APE were part of a larger investigation that covered more than 526 km of shoreline within seven counties of the Florida Panhandle. This survey was focused on the intertidal beach and upper beach and berm zones of the coastline which represent dynamic environmental zones constantly shaped by waves, tides, and storms that shift large volumes of sand. The large oil spill response survey resulted in the assessment of 20 new historic resource sites and 157 previously recorded sites. Only seven of these sites are located along the shoreline within Okaloosa County. These sites are all located in undeveloped areas east and west of the Okaloosa Island portion of the APE.

Previous work on borrow sites OK-A and OK-B include archaeological monitoring and evaluation of offshore coring conducted in 2007 (Wharton et al. 2008) and a remote sensing survey and diver evaluation project also conducted in 2007 (Lydecker 2008) (Enclosure 4). Monitoring of offshore coring activities for the borrow areas recovered wood fragments thought to be cultural, however, these were not found within the proposed OK-A and OK-B borrow areas. Remote sensing work identified 135 magnetic anomalies, 13 of which comprised 4 separate clusters interpreted as potential historic properties. These anomaly clusters were evaluated by divers and were found to not represent historic properties. A total of 13 side scan sonar targets were also identified and did not represent historic properties. Both the remote sensing and monitoring projects determined that no potentially significant submerged cultural resources were present within the proposed OK-A and OK-B borrow areas and did not recommend additional archaeological work.

Much of the area surrounding the shoreline portions of the APE has been extensively developed. The broader region has also experienced numerous catastrophic hurricane landfalls. Evidence for the frequency of these storms over the last 680 years is preserved in sediments in Lake Shelby, Alabama and highlight a particularly intense period during the early 1500s. This has only been rivaled by storm frequencies observed during the last 50 years since 1970. Pre-Contact Native American inhabitants of the region would have known about the potential for sudden and catastrophic storms along the Gulf Coast. This likely precluded intensive pre-Contact settlement of the shoreline portions of the APE and limited pre-Contact use to short-term subsistence or resources exploitation activities. Archaeological evidence of these short-term activities typically comprises small temporary camps which would have been highly susceptible to erosion within the APE (Wharton et al. 2014:2-16).

Since the late 1900s changing environmental conditions have resulted in the dramatic beach erosion along the Gulf Coast of Florida. State and municipal governments have attempted to address this problem by artificially renourishing

beaches. These beach renourishment projects pumped sand obtained from dredging navigation channels and other offshore borrow areas onto eroded beaches to build up former dunes, upper beach areas, and nearshore zones (Wharton et al. 2014:2-20). In 2006 (following impacts of hurricanes Ivan (2004) and Dennis (2005)), 950,000 cubic yards of sand was placed within a 5 km (2.1 mile) long portion of critically eroded beach in the West Destin portion of the APE (Enclosure 5) (FDEP 2020).

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Sincerely,

LADART.JEREMY.M.1258164799

Digitally signed by LADART.JEREMY.M.1258164799
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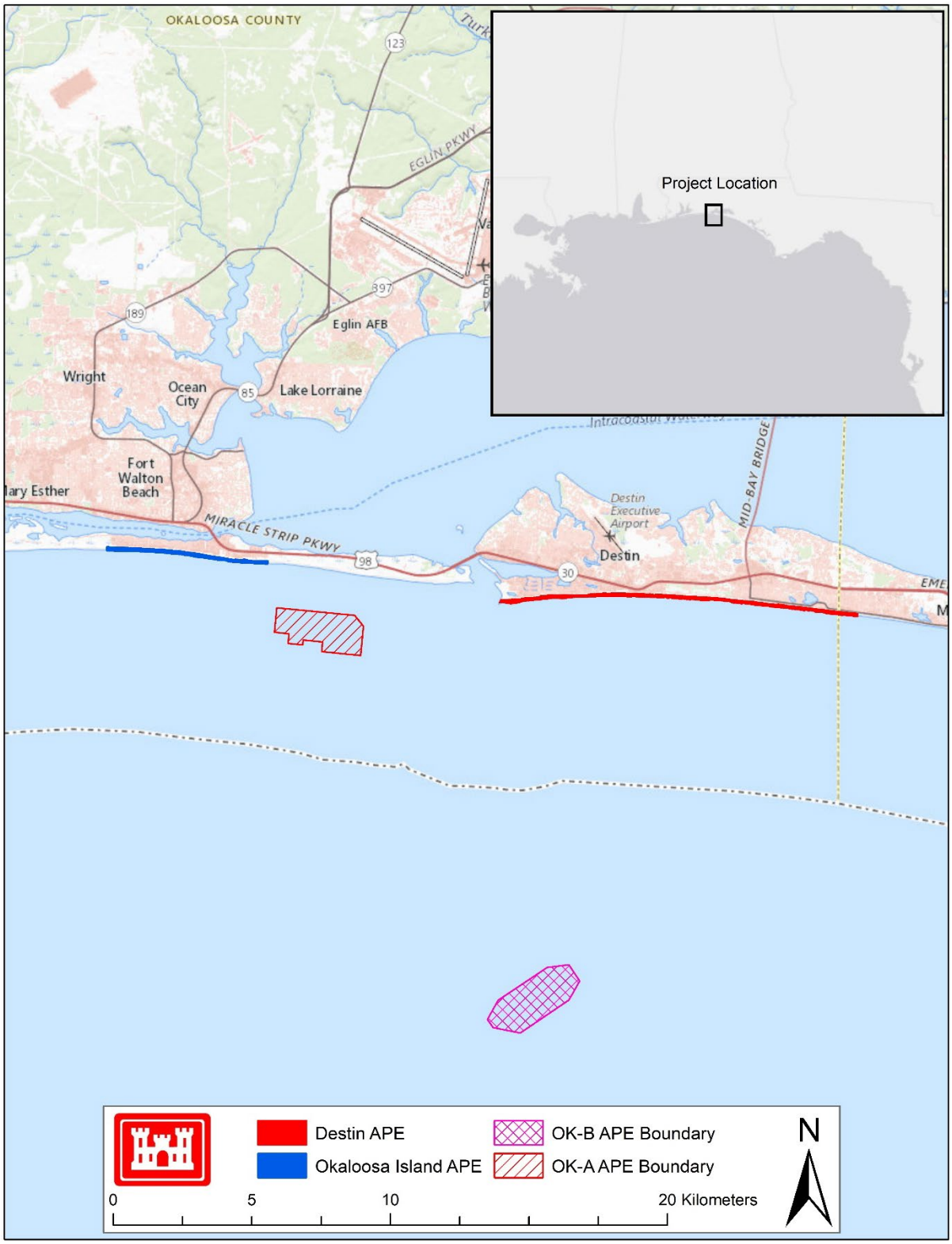
Jeremy M. LaDart
Chief, Planning and Environmental Division

Enclosures



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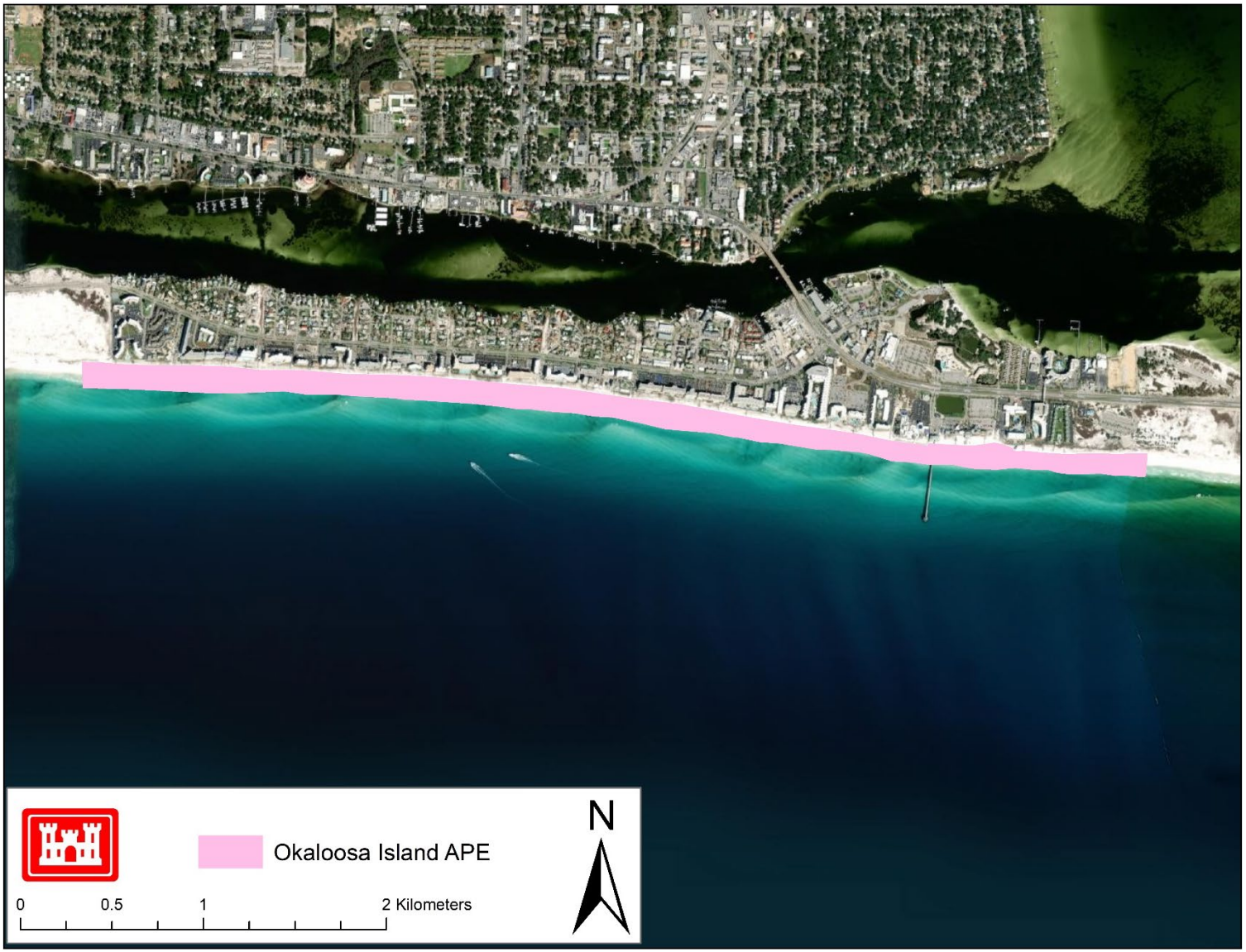

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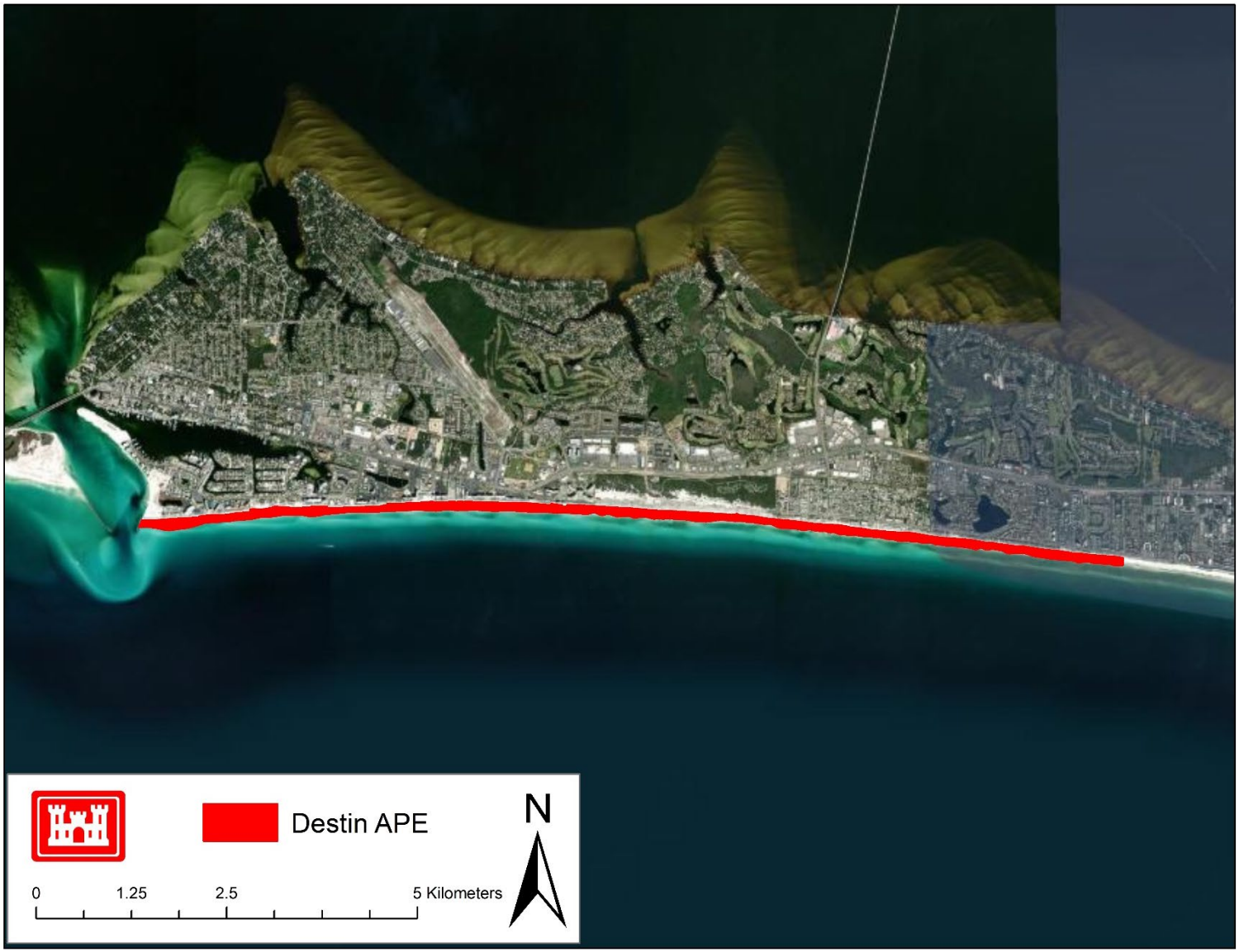

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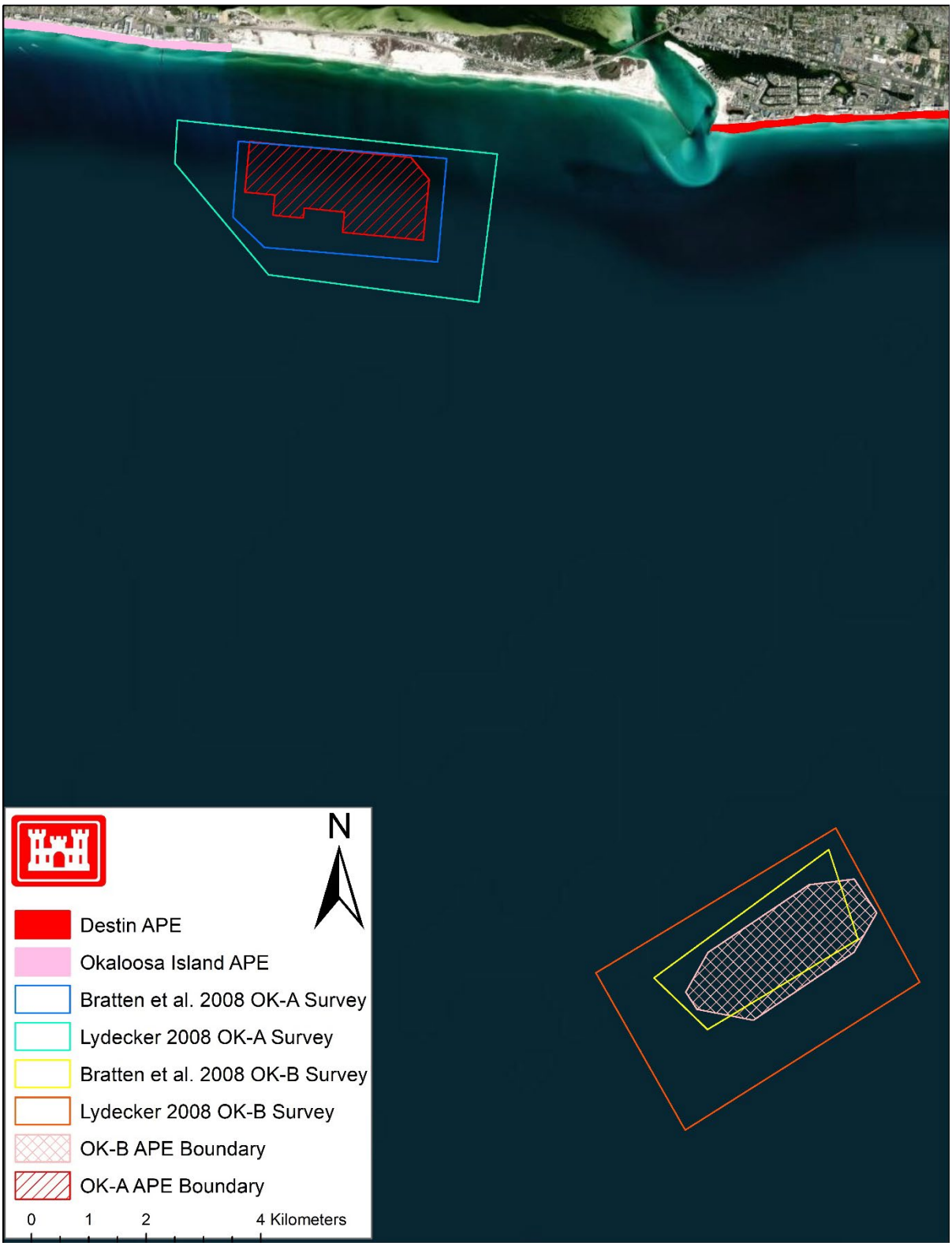
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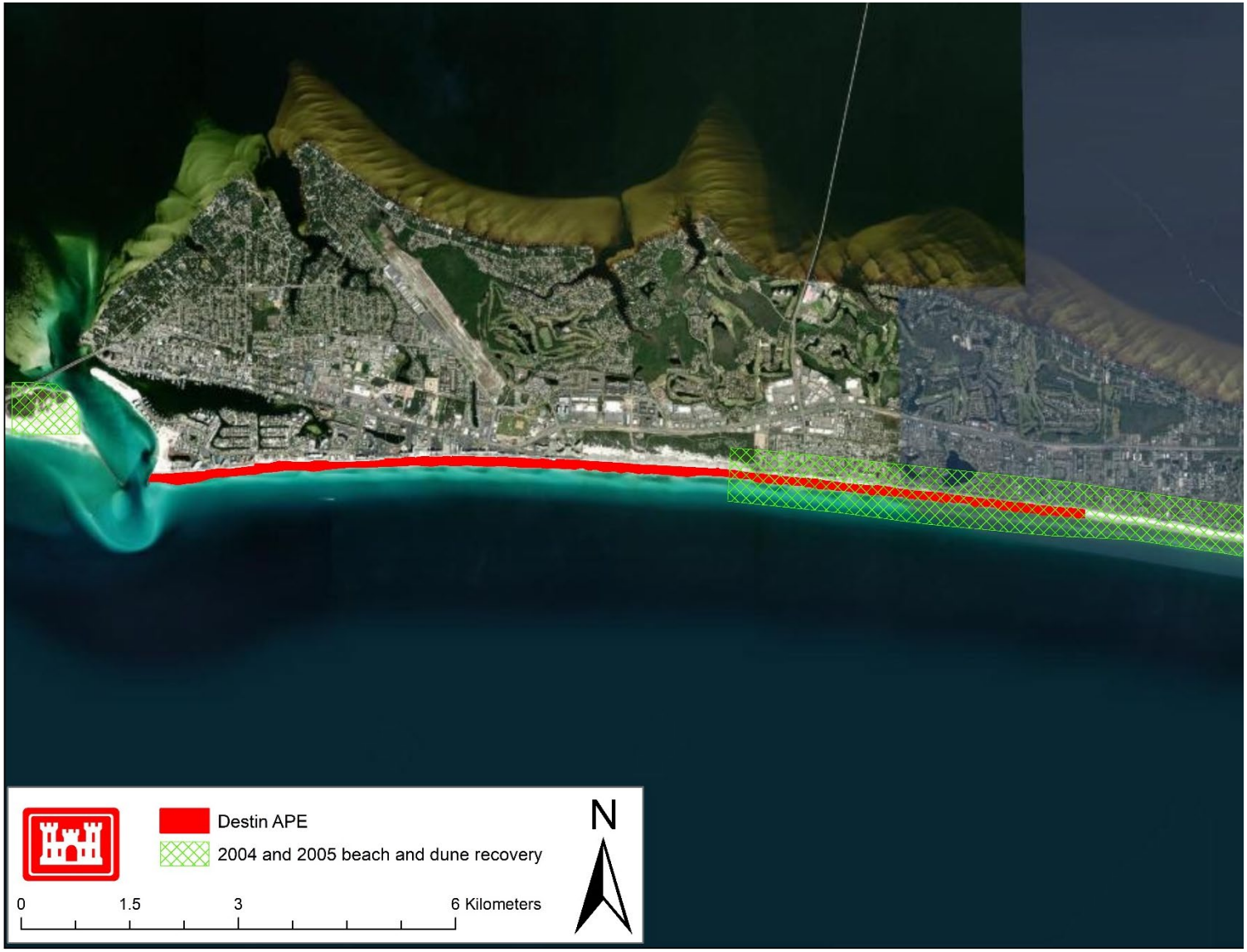
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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

January 11, 2021

REPLY TO
ATTENTION OF

Inland Environment Team
Planning and Environmental Division

Dr. Paul Backhouse
Tribal Historic Preservation Officer
Seminole Tribe of Florida
30290 Josie Billie Highway PMB 1004
Clewiston, Florida 33440

Dear Dr. Backhouse:

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Sincerely,

LADART.JEREMY.M.1258164799

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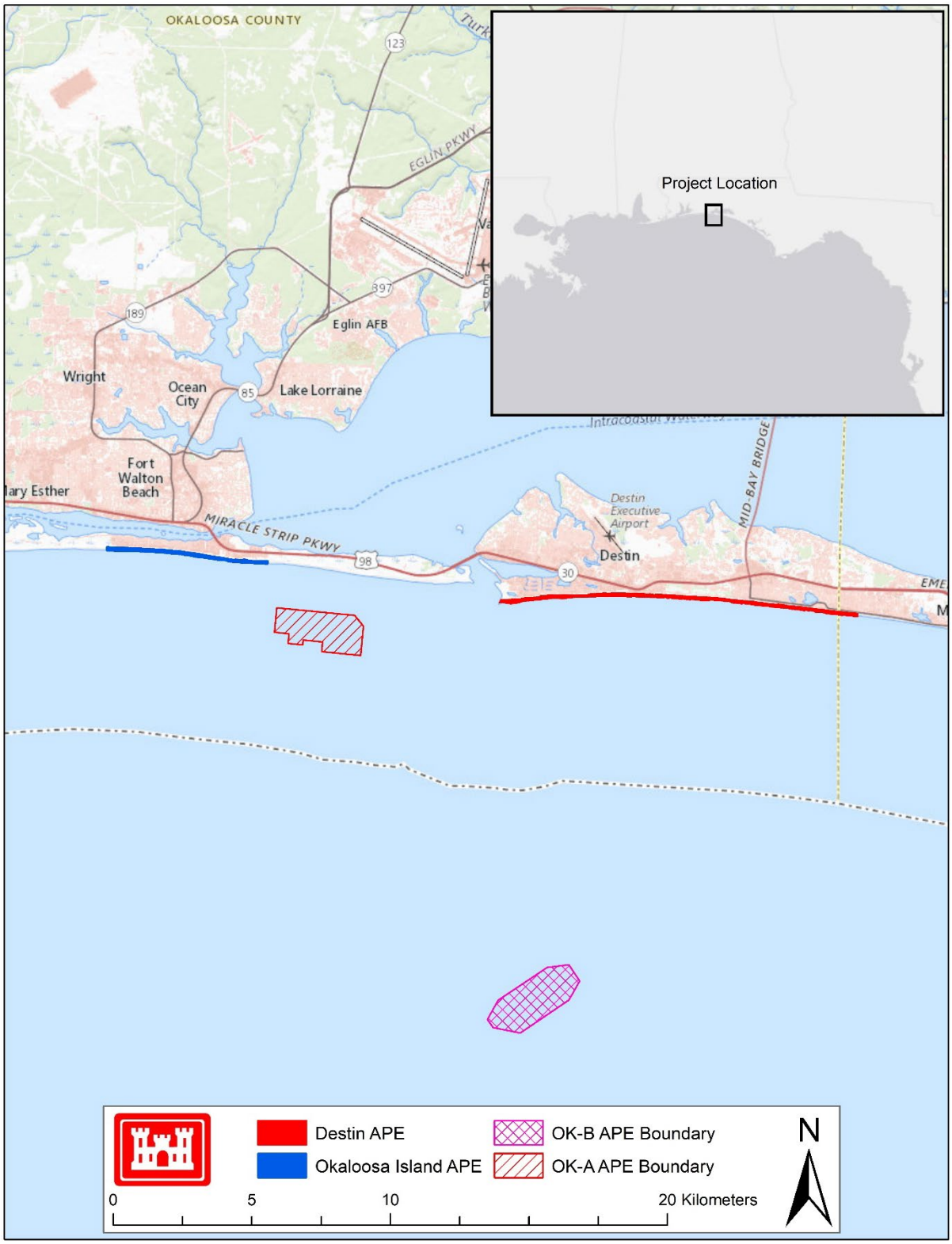
Jeremy M. LaDart
Chief, Planning and Environmental Division

Enclosures



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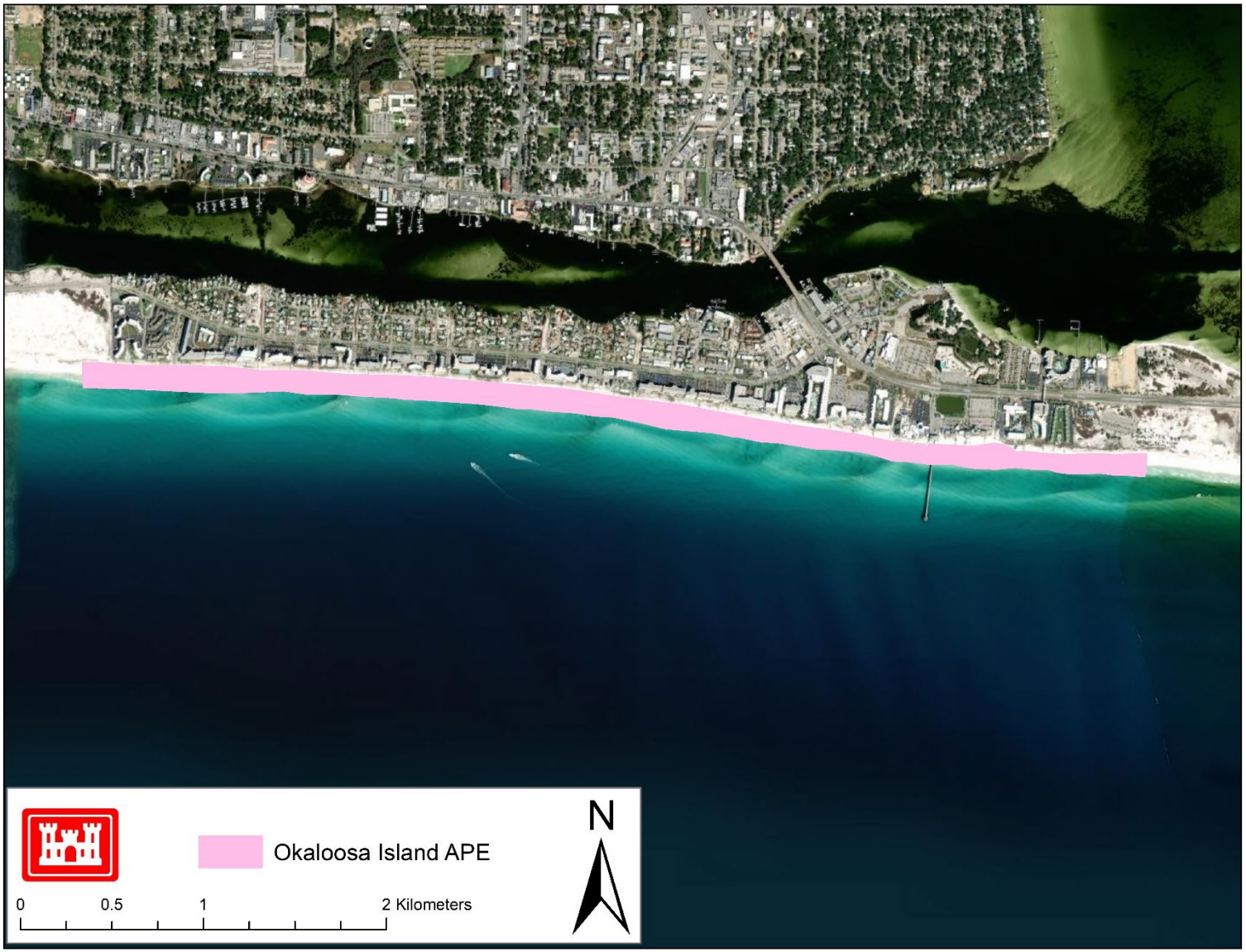

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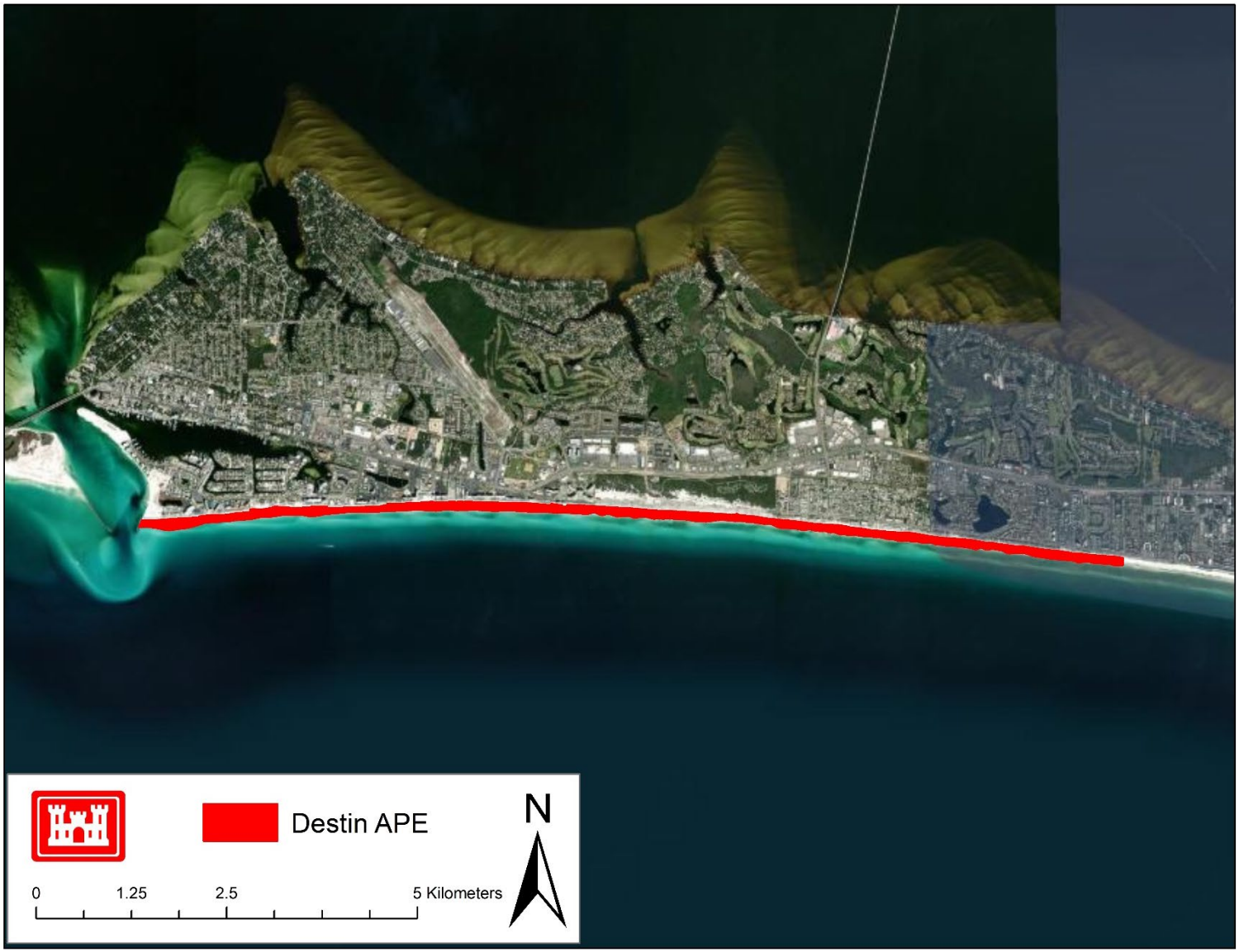

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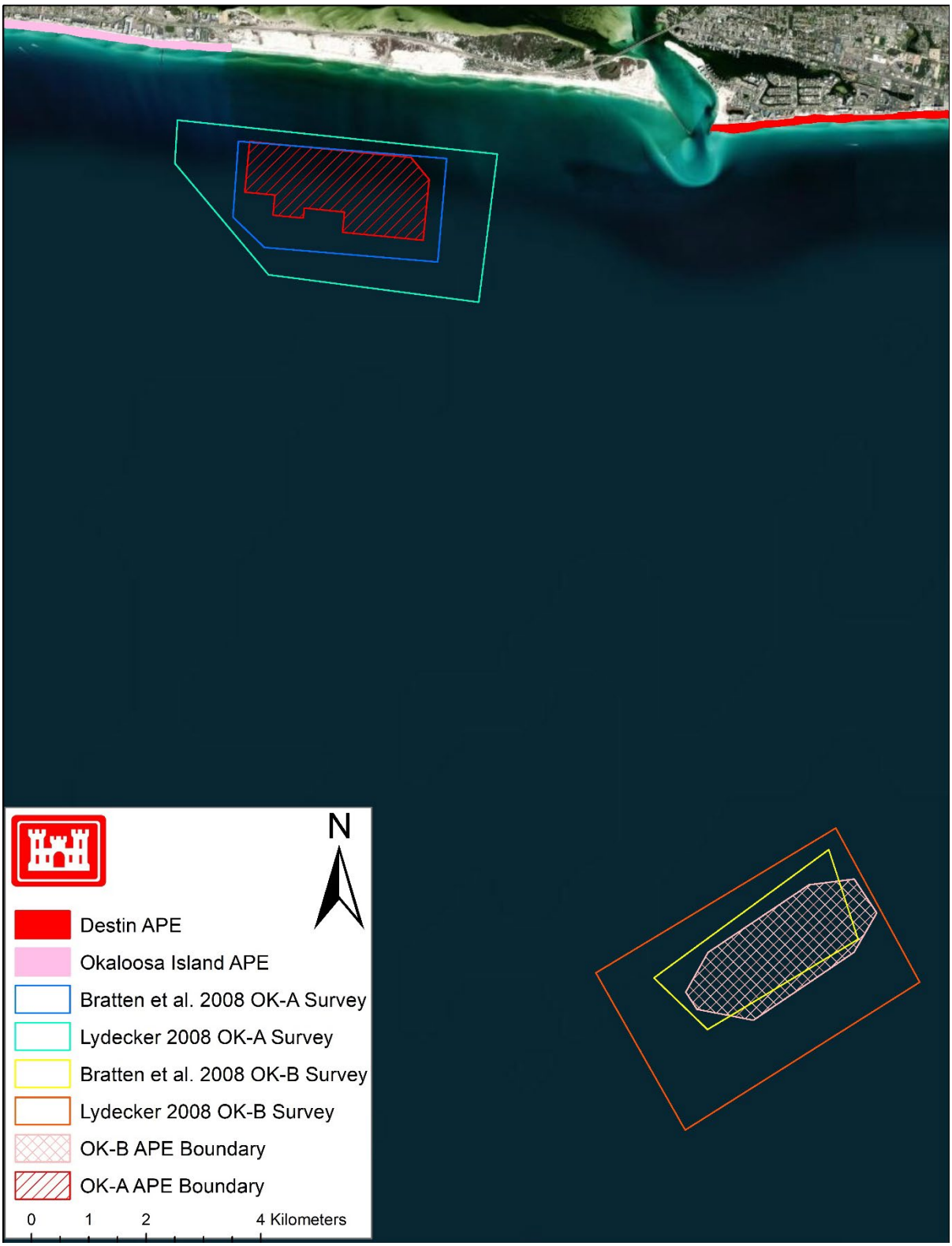
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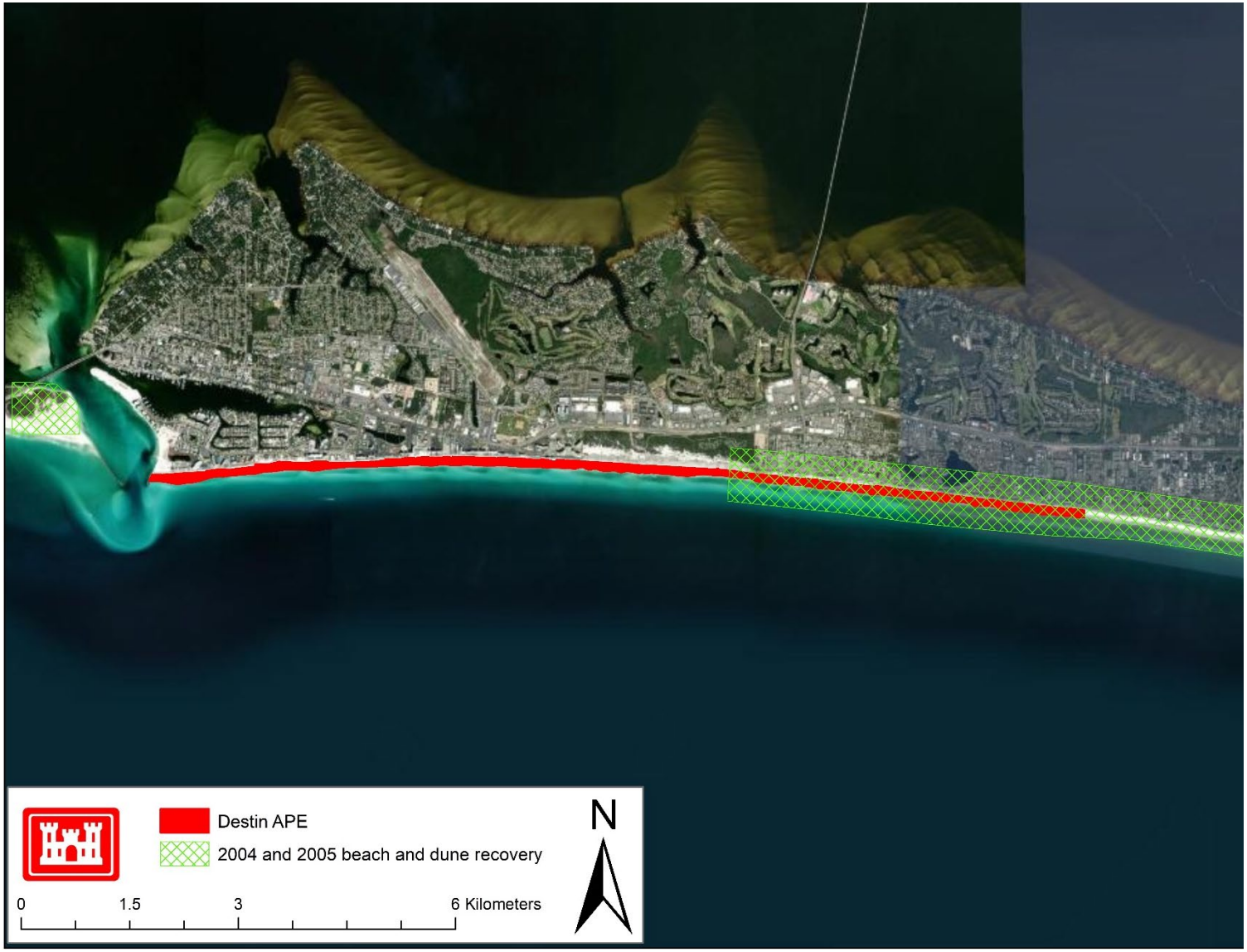
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Enclosure 5

From: Kad Henderson
To: O"DAY, Patrick Michael CIV USARMY CESAM (USA)
Cc: Bradley Mueller; Danielle Simon
Subject: [Non-DoD Source] Okaloosa County Storm Risk Management Feasibility Study
Date: Tuesday, January 26, 2021 9:33:33 AM

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC
PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA

30290 JOSIE BILLIE HIGHWAY
PMB 1004
CLEWISTON, FL 33440

THPO PHONE: (863) 983-6549
FAX: (863) 902-1117

THPO WEBSITE: WWW.STOFTHPO.COM

January 26, 2021

Mr. Jeremy M. LaDart
Chief, Planning and Environmental Division
Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Subject: Okaloosa County Storm Risk Management Feasibility Study
THPO Compliance Tracking Number: 0032825

In order to expedite the THPO review process:

1. Please correspond via email and provide documents as attachments (a THPO FTP site is available for large files),
2. Please send all emails to THPOCompliance@semtribe.com,
3. Please reference the THPO Compliance Tracking Number if one has been assigned.

Dear Mr. LaDart,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) Compliance Section regarding the Okaloosa County Storm Risk Management Feasibility Study.

The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents that you provided and completed our assessment pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800). We have no objections or other comments at this time. Please notify us if any archaeological, historical, or burial resources are inadvertently discovered during project implementation and feel free to contact us with any questions or concerns.

Respectfully,

Kad M Henderson

Kad M. Henderson MA, RPA, Compliance Review Specialist
STOF-THPO, Compliance Review Section
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440
Email: kadhenderson@semtribe.com

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

January 11, 2021

Inland Environment Team
Planning and Environmental Division

Mr. Terry Clouthier
Tribal Historic Preservation Officer
Thlopthlocco Tribal Town
Post Office Box 188
Okemah, Oklahoma 74859

Dear Mr. Clouthier:

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Since the late 1900s changing environmental conditions have resulted in the dramatic beach erosion along the Gulf Coast of Florida. State and municipal governments have attempted to address this problem by artificially renourishing

beaches. These beach renourishment projects pumped sand obtained from dredging navigation channels and other offshore borrow areas onto eroded beaches to build up former dunes, upper beach areas, and nearshore zones (Wharton et al. 2014:2-20). In 2006 (following impacts of hurricanes Ivan (2004) and Dennis (2005)), 950,000 cubic yards of sand was placed within a 5 km (2.1 mile) long portion of critically eroded beach in the West Destin portion of the APE (Enclosure 5) (FDEP 2020).

The shoreline portions of the APE are dynamic environments which are continuously changed and eroded by waves, tides, and storms. Frequent hurricanes in the region also constrained pre-Contact Native American settlement and use of the intertidal beach and upper beach and berm zones of the Gulf coast. These factors, along with modern development and previous renourishment projects suggest there is a low probability for the presence of pre-Contact archaeological sites within coastal areas of the Gulf. Also, terrestrial and marine archaeological surveys did not identify any cultural resources or historic properties within the APE. USACE, Mobile District has, therefore, determined that the proposed Project will result in **no historic properties affected**. We respectfully request any comments regarding the proposed APE and on our determination of **no historic properties affected**. USACE, Mobile District is committed to making every effort to invite all parties with an interest in the Project and those agencies with responsibilities under Section 106 of the NHPA to participate. We have also sent letters to interested Federally Recognized Tribes and other interested parties. Please send any comments and questions regarding the Project to a district archaeologist, Dr. Patrick O'Day via email at Patrick.M.O'Day@usace.army.mil or via phone at (251) 690-2326.

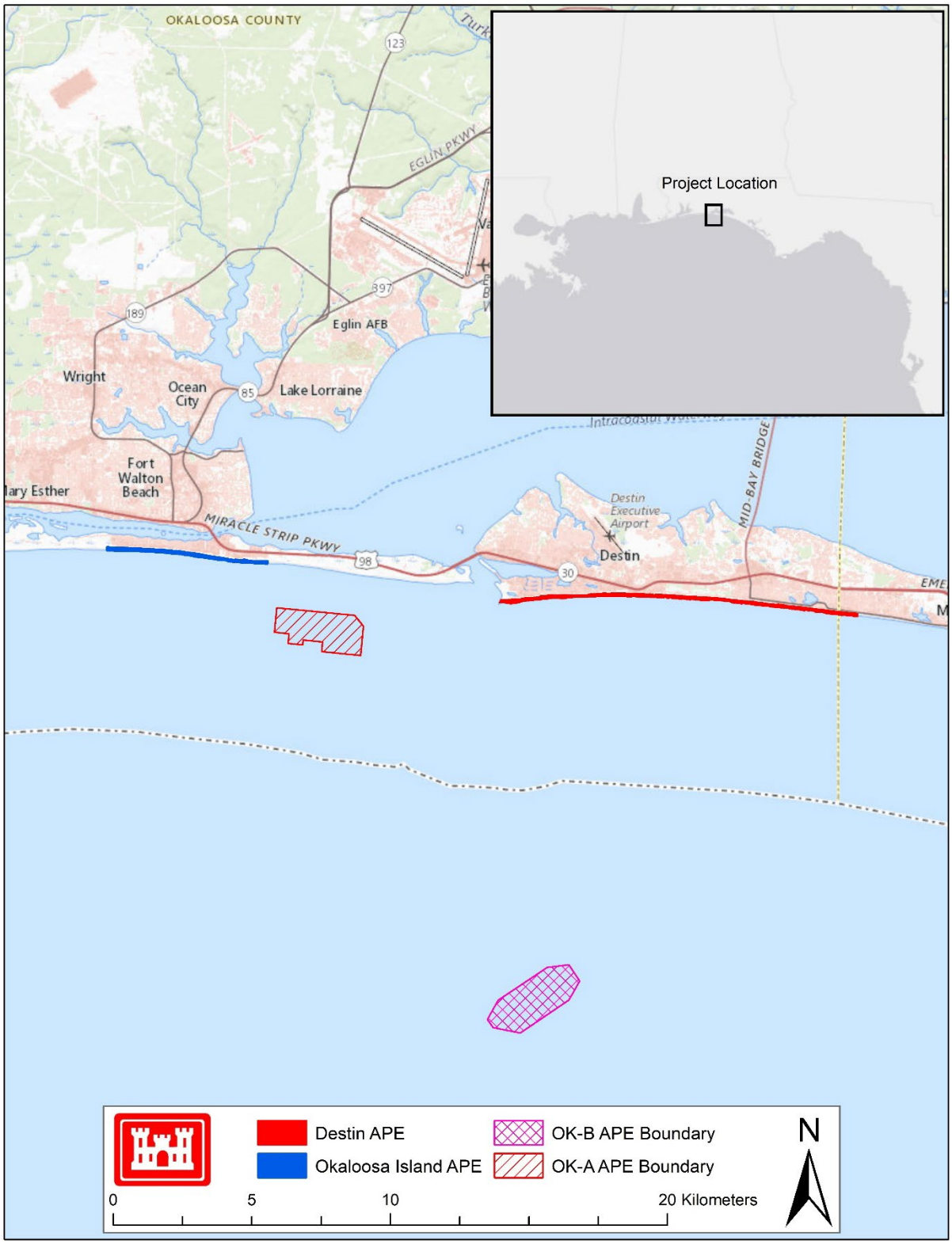
Sincerely,

LADART.JEREMY.M.1258164799

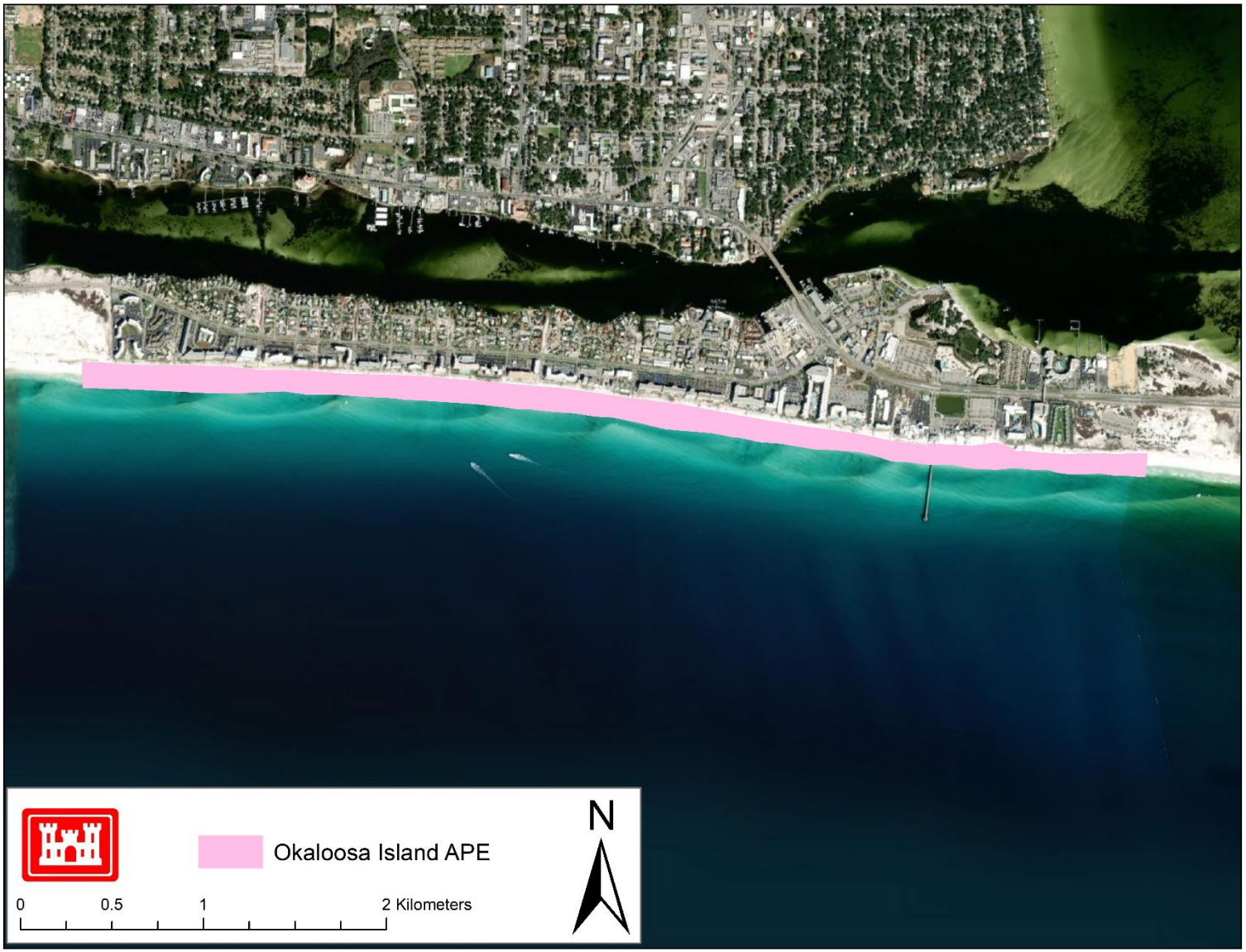
Digitally signed by LADART.JEREMY.M.1258164799
Date: 2021.01.11 10:24:59 -06'00'

Jeremy M. LaDart
Chief, Planning and Environmental Division

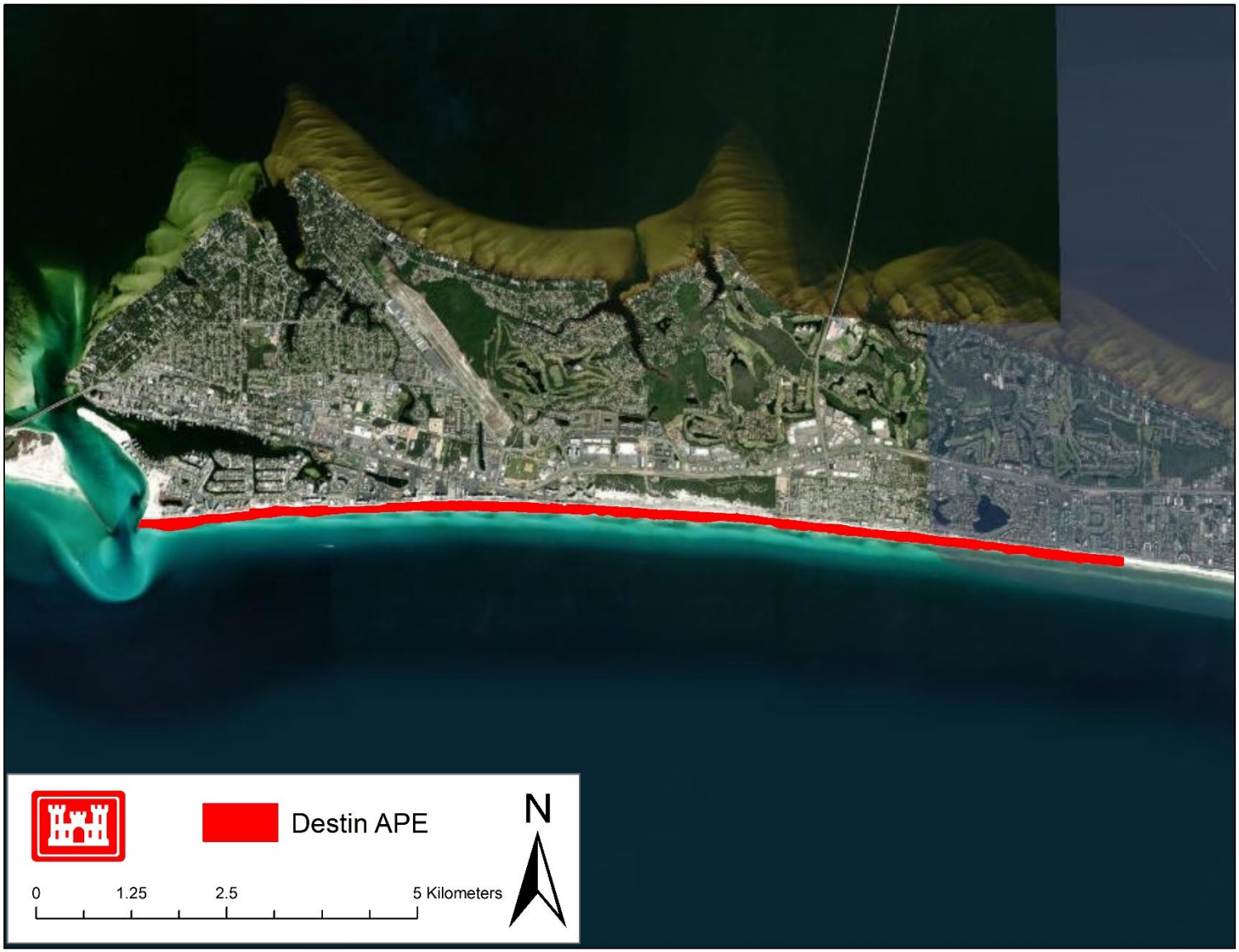
Enclosures



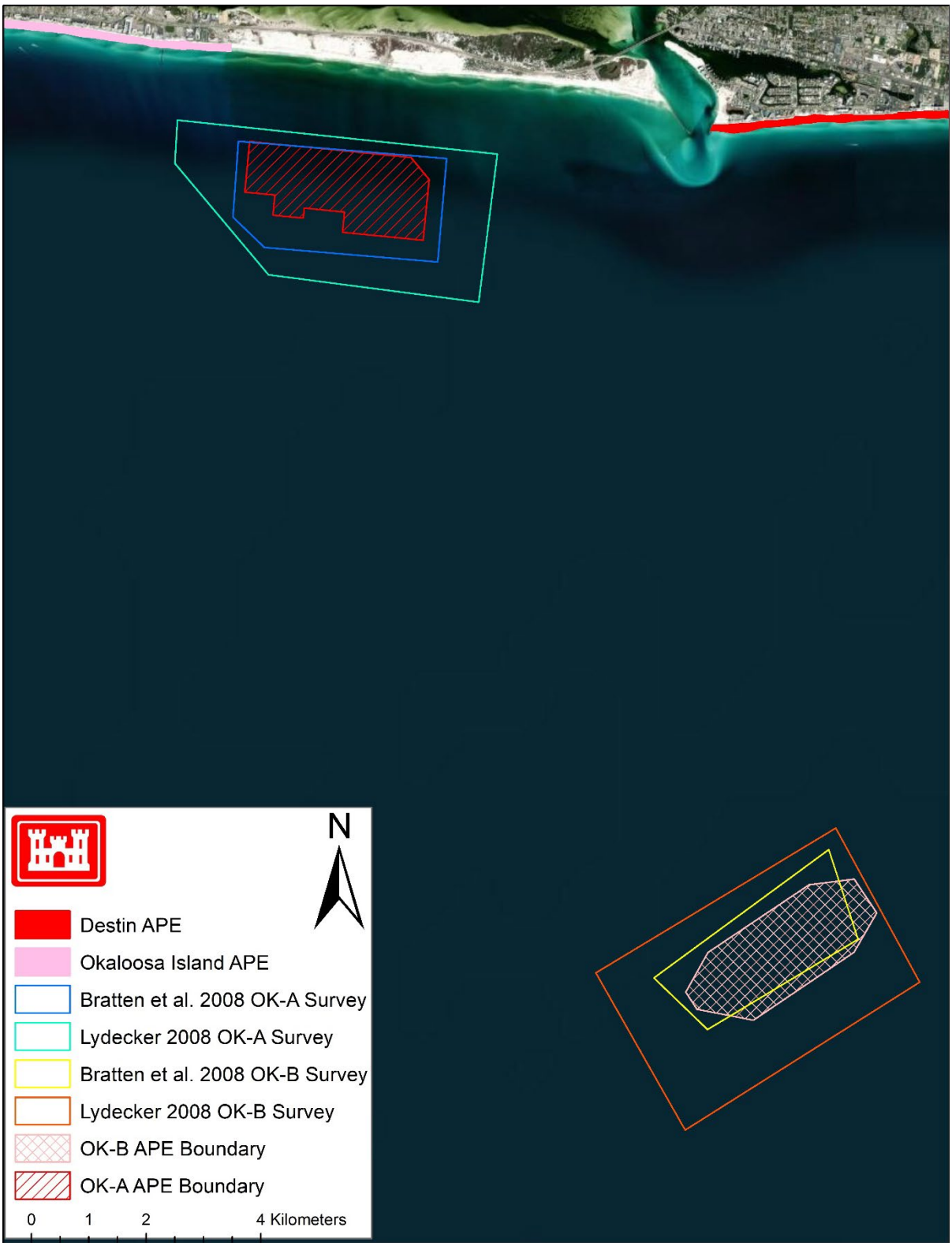
Enclosure 1. Project locator map showing coastline and offshore portions of APE



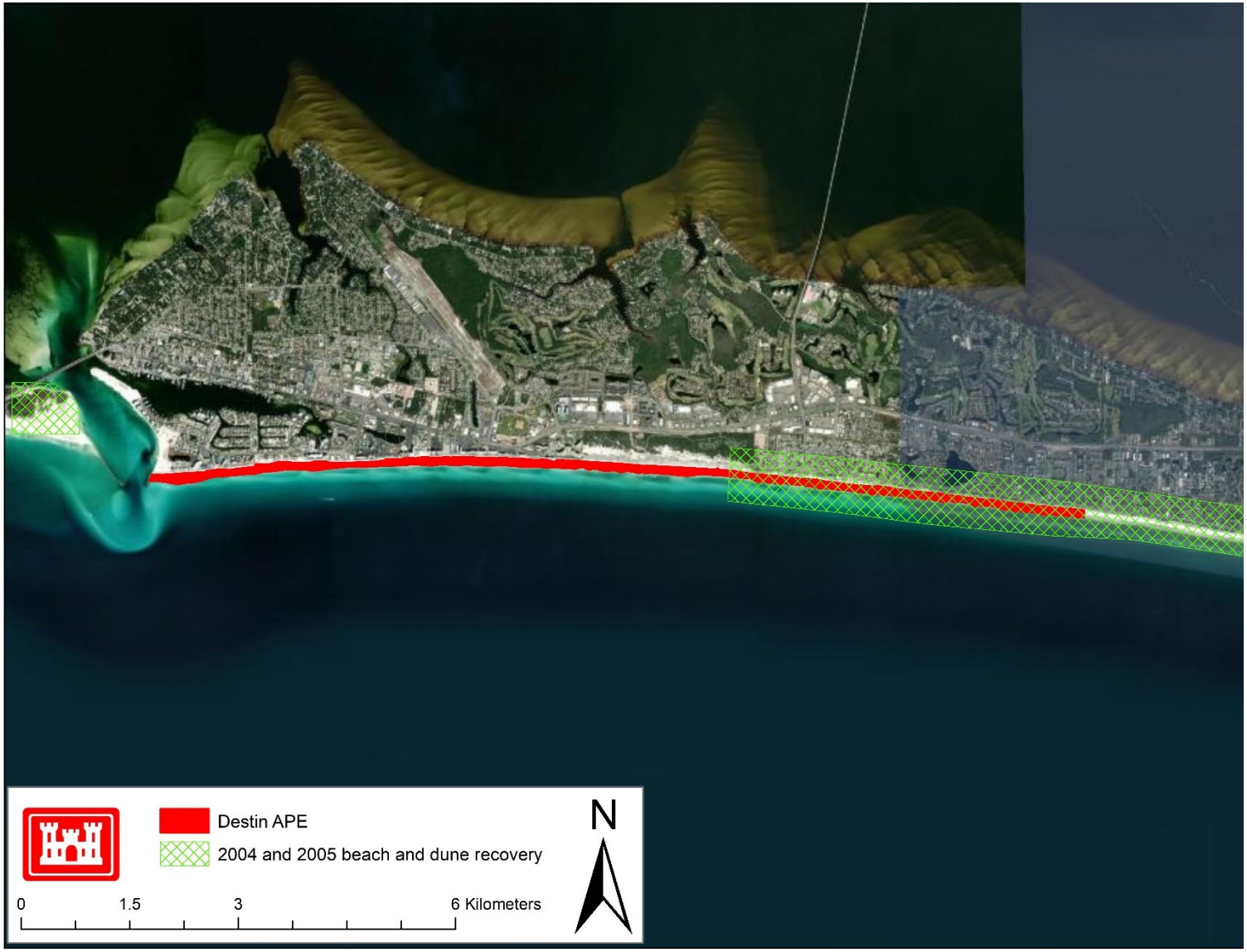
Enclosure 2



Enclosure 3


N
Destin APE
Okaloosa Island APE
Bratten et al. 2008 OK-A Survey
Lydecker 2008 OK-A Survey
Bratten et al. 2008 OK-B Survey
Lydecker 2008 OK-B Survey
OK-B APE Boundary
OK-A APE Boundary
0
1
2
4 Kilometers

Enclosure 4


Destin APE
2004 and 2005 beach and dune recovery
N
0
1.5
3
6 Kilometers

Enclosure 5

FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Patrick M. O'Day, Project Manager
U.S Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Al 36628-0001

February 4, 2021

RE: DHR Project File No.: 2021-0079, Received by DHR: January 13, 2021
Project: *Okaloosa County Storm Risk Management Feasibility Study*
County: Okaloosa

Dear Mr. O'Day:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places.* The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties.*

Our office concurs with USACE's determination that the proposed activities is unlikely to affect historic properties. However, the permit, if issued, should include the following special condition regarding unexpected discoveries:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

If you have any questions, please contact Michael DuBose, Historic Sites Specialist, by email at *Michael.DuBose@dos.myflorida.com* or by telephone at 850.245.6342.

Sincerely,

For
Timothy A Parsons, Ph.D.
Director, Division of Historical Resources & State Historic Preservation Officer

O'DAY, Patrick Michael CIV USARMY CESAM (USA)

From: Section106 <Section106@mcn-nsn.gov>
Sent: Tuesday, February 23, 2021 11:25 AM
To: O'DAY, Patrick Michael CIV USARMY CESAM (USA)
Subject: [Non-DoD Source] Re: Okaloosa County Storm Risk Management Feasibility Study

Good morning Dr. O'Day,

Thank you for sending the correspondence regarding the proposed placement of sand along sections of the Gulf Coast in Okaloosa County, Florida. Okaloosa County is located within the Muscogee (Creek) Nation's historic area of interest and is of importance to us. After review, the Muscogee Nation is unaware of any Muscogee sacred sites, burial grounds, or significant cultural resources located within the immediate project area. The Muscogee Nation concurs that there should be **no effects to any known historic properties** and that work should continue as planned. However, due to the historic presence of Muscogee people in the project area, inadvertent discoveries of cultural resources, human remains and related NAGPRA items may occur, even in areas of existing or prior development. Should this occur, the Muscogee (Creek) Nation requests that all work cease and our office as well as other appropriate agencies be notified immediately. Please feel free to contact me if there are any questions or concerns.

Thank you,

Robin Soweka Jr.
Historic and Cultural Preservation Department | Cultural Resource Specialist
Muscogee (Creek) Nation
P.O. Box 580 | Okmulgee, OK 74447
T 918.732.7726
F 918.758.0649
http://www.muscogeenation-nsn.gov/

From: O'DAY, Patrick Michael CIV USARMY CESAM (USA) <Patrick.M.O'Day@usace.army.mil>
Sent: Wednesday, January 13, 2021 3:40 PM
To: Section106 <Section106@mcn-nsn.gov>
Subject: Okaloosa County Storm Risk Management Feasibility Study

Dear Ms. Lowe-Zepeda,

I hope this email finds you well!

I have attached a letter regarding Section 106 consultation for the proposed Okaloosa County Storm Risk Management Project. the letter provides a description of the Undertaking, a description and maps of the area of potential effect, and a proposed determination of no historic properties affected. Please review the letter and let me know if you require any additional information regarding the project. Thank you,

Sincerely,

Patrick O'Day

Patrick O'Day, PhD

Archaeologist
US Army Corps of Engineers
Planning & Inland Environmental Division
109 St. Joseph Street
Mobile, Alabama 36602
☎(251)690-2326
Cell(251)604-2159

From: Kad Henderson
To: O"DAY, Patrick Michael CIV USARMY CESAM (USA)
Cc: Bradley Mueller; Danielle Simon
Subject: [Non-DoD Source] Okaloosa County Storm Risk Management Feasibility Study
Date: Tuesday, January 26, 2021 9:33:33 AM

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC
PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA

30290 JOSIE BILLIE HIGHWAY
PMB 1004
CLEWISTON, FL 33440

THPO PHONE: (863) 983-6549
FAX: (863) 902-1117

THPO WEBSITE: WWW.STOFTHPO.COM

January 26, 2021

Mr. Jeremy M. LaDart
Chief, Planning and Environmental Division
Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Subject: Okaloosa County Storm Risk Management Feasibility Study
THPO Compliance Tracking Number: 0032825

In order to expedite the THPO review process:

1. Please correspond via email and provide documents as attachments (a THPO FTP site is available for large files),
2. Please send all emails to THPOCompliance@semtribe.com,
3. Please reference the THPO Compliance Tracking Number if one has been assigned.

Dear Mr. LaDart,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) Compliance Section regarding the Okaloosa County Storm Risk Management Feasibility Study.

The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents that you provided and completed our assessment pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800). We have no objections or other comments at this time. Please notify us if any archaeological, historical, or burial resources are inadvertently discovered during project implementation and feel free to contact us with any questions or concerns.

Respectfully,

Kad M Henderson

Kad M. Henderson MA, RPA, Compliance Review Specialist
STOF-THPO, Compliance Review Section
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440
Email: kadhenderson@semtribe.com

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 10

[Docket No. FWS–HQ–MB–2018–0047; FXMB 12320900000//189//FF09M29000]

RIN 1018–BC67

General Provisions; Revised List of Migratory Birds

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Revised proposed rule; reopening of comment period.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose additions to the November 28, 2018, proposed rule to update the List of Migratory Birds protected by the Migratory Bird Treaty Act (MBTA). The proposed revisions in this document consist of further updates to taxonomy and distribution published in 2019. The net increase of 8 additional species (10 added and 2 removed) to the November 28, 2018, proposed rule would bring the total number of species protected by the MBTA to 1,093. We request public comments on the revisions described in this document, as well as on our November 28, 2018, proposed rule. If you previously submitted comments on our November 28, 2018, proposed rule, please do not resubmit them, as we will fully consider those comments when preparing our final rule.

DATES: The comment period for the November 28, 2018, proposed rule (83 FR 61288) is reopened. We will accept comments received or postmarked on or before December 12, 2019. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* In the Search box, enter FWS–HQ–MB–2018–0047, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment Now!''

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–HQ–MB–2018–0047, U.S. Fish and Wildlife Service, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see *Public Comments*, below, for more information).

FOR FURTHER INFORMATION CONTACT: Eric L. Kershner, Chief of the Branch of Conservation, Permits, and Regulations; Division of Migratory Bird Management; U.S. Fish and Wildlife Service; MS: MB; 5275 Leesburg Pike, Falls Church, VA 22041–3803; (703) 358–2376.

SUPPLEMENTARY INFORMATION:

Background

For background information on our statutory authorities and on the List of Migratory Birds protected by the MBTA (16 U.S.C. 703–712), see our November 28, 2018, proposed rule (83 FR 61288).

Previous Federal Actions

On November 28, 2018, we published a proposed rule (83 FR 61288) to revise the List of Migratory Birds protected by the MBTA by both adding and removing species. The List of Migratory Birds (50 CFR 10.13) was last revised on November 1, 2013 (78 FR 65844). Reasons for the changes to the list include adding species based on new taxonomy and new evidence of natural occurrence in the United States or U.S. territories, removing species no longer known to occur within the United States or U.S. territories, and changing names to conform to accepted use. An accurate and up-to-date list of species protected by the MBTA is essential for public notification and regulatory purposes.

Revised Proposed Changes to the List of Migratory Birds

The November 28, 2018, proposed rule (83 FR 61288) included revisions to the List of Migratory Birds that would result in a net increase of 59 species (66 added and 7 removed) and would bring the total number of species protected by the MBTA to 1,085. With this document, we propose to revise our November 28, 2018, proposed rule to come into conformance with updates in taxonomy and distribution recently published by the American Ornithological Society (AOS 2019). The revisions, described below under *Revised Provisions,* involve a net increase of 8 additional species (10 added and 2 removed) and would bring the total number of species protected by the MBTA to 1,093.

Retained Provisions of the November 28, 2018, Proposed Rule

As set forth in the November 28, 2018, proposed rule (83 FR 61288), we continue to propose to:

(1) Add 16 of the 17 species included in the 2018 proposed rule that qualify for protection under the MBTA but have not been added previously (please note: We are removing one species that was proposed to be added in the November 28, 2018, proposed rule; the European Turtle-Dove, discussed below under *Revised Provisions*);

(2) Correct the spelling of 3 species names on the alphabetized list;

(3) Correct the spelling of 3 species names on the taxonomic list;

(4) Add 22 species based on new distributional records documenting their natural occurrence in the United States or U.S. territories since 2010;

(5) Add one species moved from a family that was not protected to a family now protected under the MBTA as a result of taxonomic changes;

(6) Add 26 species newly recognized as a result of recent taxonomic changes;

(7) Remove 7 species not known to occur within the boundaries of the United States or U.S. territories as a result of recent taxonomic changes;

(8) Revise the common (English) names of 40 species to conform to accepted use; and

(9) Revise the scientific names of 114 species to conform to accepted use.

Revised Provisions

The revisions we are proposing to our November 28, 2018, proposed rule (83 FR 61288) in this document consist of:

(1) Removing European Turtle-Dove, *Streptopelia turtur* (AOU 2007), from species that qualify for protection under the MBTA but have not been added previously, based on our review of the evidence available for natural occurrence of the species in the United States;

(2) Correcting the spelling of the species name of White-throated Ground-Dove from *Alopecoenas xanthonura* to *Alopecoenas xanthonurus* on the alphabetized and taxonomic lists;

(3) Correcting the citation for Cackling Goose, *Branta hutchinsii* (AOU 2003) to (AOU 2004);

(4) Revising the citations for Pink-footed Goose, *Anser brachyrhynchus* (AOU 1983) to (AOS 2019), and Nazca Booby, *Sula granti* (AOU 2000) to (AOS 2019);

(5) Adding the following 8 additional species based on new distributional records documenting their natural occurrence in the United States or U.S. territories (AOS 2019):

European Storm-Petrel, *Hydrobates pelagicus*—North Carolina and Florida;

Great Black Hawk, *Buteogallus urubitinga*—Texas and Maine;

Thick-billed Warbler, *Arundinax aedon*—Alaska;

River Warbler, *Locustella fluviatilis*—Alaska;

European Robin, *Erithacus rubecula*—Pennsylvania;

Pied Wheatear, *Oenanthe pleschanka*—Alaska;

Pallas's Rosefinch, *Carpodacus roseus*—Alaska; and

Black-backed Oriole, *Icterus abeillei*—Pennsylvania, Massachusetts, Connecticut;

(6) Adding the following 2 additional species newly recognized as a result of recent taxonomic changes (AOS 2019):

Stejneger's Scoter, *Melanitta stejnegeri*—formerly considered conspecific with Velvet Scoter, *Melanitta fusca;* and

Gray-faced Petrel, *Pterodroma gouldi*—formerly considered conspecific with Great-winged Petrel, *Pterodroma macroptera;*

(7) Removing the following 1 additional species not known to occur within the boundaries of the United States or U.S. territories as a result of recent taxonomic changes (AOS 2019):

Great-winged Petrel, *Pterodroma macroptera;*

(8) Revising the common (English) names of the following 4 additional species to conform to accepted use (AOS 2019):

Common Ground-Dove, *Columbina passerina* becomes Common Ground Dove, *Columbina passerina;*

Ruddy Ground-Dove, *Columbina talpacoti* becomes Ruddy Ground Dove, *Columbina talpacoti;*

Amethyst-throated Hummingbird, *Lampornis amethystinus* becomes Amethyst-throated Mountain-gem, *Lampornis amethystinus;* and

Blue-throated Hummingbird, *Lampornis clemenciae* becomes Blue-throated Mountain-gem, *Lampornis clemenciae;* and

(9) Revising the scientific names of the following 20 additional species to conform to accepted use (AOS 2019):

White-winged Scoter, *Melanitta fusca* becomes White-winged Scoter, *Melanitta deglandi;*

Bahama Woodstar, *Calliphlox evelynae* becomes Bahama Woodstar, *Nesophlox evelynae;*

Fork-tailed Storm-Petrel, *Oceanodroma furcata* becomes Fork-tailed Storm-Petrel, *Hydrobates furcatus;*

Ringed Storm-Petrel, *Oceanodroma hornbyi* becomes Ringed Storm-Petrel, *Hydrobates hornbyi;*

Swinhoe's Storm-Petrel, *Oceanodroma monorhis* becomes Swinhoe's Storm-Petrel, *Hydrobates monorhis;*

Leach's Storm-Petrel, *Oceanodroma leucorhoa* becomes Leach's Storm-Petrel, *Hydrobates leucorhous;*

Townsend's Storm-Petrel, *Oceanodroma socorroensis* becomes Townsend's Storm-Petrel, *Hydrobates socorroensis;*

Ashy Storm-Petrel, *Oceanodroma homochroa* becomes Ashy Storm-Petrel, *Hydrobates homochroa;*

Band-rumped Storm-Petrel, *Oceanodroma castro* becomes Band-rumped Storm-Petrel, *Hydrobates castro;*

Wedge-rumped Storm-Petrel, *Oceanodroma tethys* becomes Wedge-rumped Storm-Petrel, *Hydrobates tethys;*

Black Storm-Petrel, *Oceanodroma melania* becomes Black Storm-Petrel, *Hydrobates melania;*

Tristram's Storm-Petrel, *Oceanodroma tristrami* becomes Tristram's Storm-Petrel, *Hydrobates tristrami,*

Least Storm-Petrel, *Oceanodroma microsoma* becomes Least Storm-Petrel, *Hydrobates microsoma;*

Tennessee Warbler, *Oreothlypis peregrina* becomes Tennessee Warbler, *Leiothlypis peregrina*

Orange-crowned Warbler, *Oreothlypis celata* becomes Orange-crowned Warbler, *Leiothlypis celata;*

Colima Warbler, *Oreothlypis crissalis* becomes Colima Warbler, *Leiothlypis crissalis;*

Lucy's Warbler, *Oreothlypis luciae* becomes Lucy's Warbler, *Leiothlypis luciae;*

Nashville Warbler, *Oreothlypis ruficapilla* becomes Nashville Warbler, *Leiothlypis ruficapilla;*

Virginia's Warbler, *Oreothlypis virginiae* becomes Virginia's Warbler, *Leiothlypis virginiae;* and

Black-faced Grassquit, *Tiaris bicolor* becomes Black-faced Grassquit, *Melanospiza bicolor.*

What scientific authorities are used to amend the list of migratory birds?

Although bird names (common and scientific) are relatively stable, staying current with standardized use is necessary to avoid confusion in communications. In making our determinations, we primarily relied on the American Ornithological Society's (AOS's) Checklist of North American birds (AOU 1998), as amended annually (AOU 1999 through 2016, AOS 2017 through 2019), on matters of taxonomy, nomenclature, and the sequence of species and other higher taxonomic categories (Orders, Families, Subfamilies) for species that occur in North America. The AOU (now AOS) Checklist of North American birds (Checklist), developed by the AOU Committee on Classification and Nomenclature, has been the recognized taxonomic authority for North American birds since publication of the first edition of the Checklist in 1886. The committee compiles the taxonomic foundation for ornithology in North America; evaluating and codifying the latest scientific developments in the systematics, classification, nomenclature, and distribution of North American birds. Thus, the AOS's Checklist represents the best information available for developing the North American component of this List of Migratory Birds. In keeping with the increasing numbers of study areas on which taxonomy relies, the committee incorporates expertise in phylogenetics, genomics, vocalizations, morphology, behavior, and geographical distribution, as well as general ornithological knowledge. The AOS Checklist contains all bird species that have occurred in North America from the Arctic through Panama, including the West Indies and the Hawaiian Islands, and includes distributional information for each species, which specifies whether the species is known to occur in the United States, and the Committee on Classification and Nomenclature also keeps and updates a list of species known to occur in the United States. The 2019 update of the AOS Checklist made this revised proposed rule necessary, as the 2019 update became available after the publication of our November 28, 2018, proposed rule.

For the species that occur outside the geographic area covered by the AOS Checklist, we relied on the Clements Checklist of Birds of the World (Clements Checklist) (Clements *et al.* 2017), and peer-reviewed literature. The Clements Checklist, originally published in 1974, serves as a comprehensive list of bird species of the world, incorporating updates and advances in taxonomy and distribution published by regional scientific authorities. The Clements Checklist relies on the AOS for North American updates, but for U.S. territories beyond the geographic scope of the AOS, the Clements Checklist relies on other regional scientific authorities.

Although we primarily rely on the above sources, when informed taxonomic opinion is inconsistent or controversial, we evaluate available published and unpublished information and come to our own conclusion regarding the validity of taxa.

What criteria are used to identify individual species protected by the MBTA?

A species qualifies for protection under the MBTA by meeting one or more of the following criteria:

(1) It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments. Any species that occurs in the United States or U.S. territories solely as a result of intentional or unintentional human-assisted introduction does not qualify for the MBTA list, regardless of whether the family the species belongs to is listed in any of the treaties, unless:

- It was native to the United States or its territories and extant in 1918;
- It was extirpated after 1918 throughout its range in the United States and its territories; and
- After such extirpation, it was reintroduced in the United States or its territories as part of a program carried out by a Federal agency.

(2) Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes. If a newly recognized native species is considered extinct (following the classification of the AOS or, for species not covered by the AOS, the Clements checklist or peer-reviewed literature), that species will still be included if either of the following criteria apply:

- The species resembles extant species included in the list that may be affected by trade if the species is not included; or
- Not including the species may create difficulties implementing the MBTA and its underlying Conventions.

(3) New evidence exists for its natural occurrence in the United States or U.S. territories resulting from new or natural distributional changes and the species occurs in a protected family. Records must be documented, accepted, and published by the AOS committee. For the U.S. Pacific territories that fall outside the geographic scope of the AOS and for which there is no identified ornithological authority, new evidence of a species' natural occurrence will be based on the Clements checklist and then published peer-reviewed literature, in that order.

In accordance with the Migratory Bird Treaty Reform Act of 2004 (MBTRA) (Pub. L. 108–447, 118 Stat. 2809, 3071–72), we only include migratory bird species that are native to the United States or U.S. territories. A native migratory bird species is one that is present as a result of natural biological or ecological processes. The List of Migratory Birds protected by the MBTA in title 50 of the Code of Federal Regulations (CFR) at part 10, section 13 (50 CFR 10.13), does not include nonnative species that occur in the United States or U.S. territories solely as a result of intentional or unintentional human-assisted introduction(s). A Notice of Availability of a draft list to update the list of all nonnative, human-introduced bird species to which the MBTA does not apply published on November 28, 2018 (83 FR 61161).

Public Comments

Any final action resulting from our November 28, 2018, proposed rule (83 FR 61288) and this revised proposed rule must be based on the best scientific and commercial data available and be as accurate and as effective as possible. We will address the comments we received during the original comment period on the November 28, 2018, proposed rule (83 FR 61288), as well as any comments we receive during the reopened comment period for this revised proposed rule, in our final rule for this action. During this reopened comment period, we request comments or information from other concerned governmental agencies, the scientific community, industry, or any other interested parties concerning our November 28, 2018, proposed rule (83 FR 61288) and this revised proposed rule.

Please include sufficient information with your submission (such as electronic copies of scientific journal articles or other publications, preferably in English) to allow us to verify any scientific or commercial information you include.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via *http://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *http://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Division of Migratory Bird Management (see **FOR FURTHER INFORMATION CONTACT**).

Required Determinations

We are affirming our required determinations made in our November 28, 2018, proposed rule (83 FR 61288); for descriptions of our actions to ensure compliance with the following statutes and Executive Orders, see that proposed rule:

- National Environmental Policy Act;
- Endangered Species Act;
- Regulatory Flexibility Act;
- Small Business Regulatory Enforcement Fairness Act;
- Paperwork Reduction Act of 1995;
- Unfunded Mandates Reform Act;
- Executive Orders 12630, 12866, 12988, 13132, 13175, 13211, 13563, and 13771.

List of Subjects in Part 10

Exports, Fish, Imports, Law enforcement, Plants, Transportation, Wildlife.

Proposed Regulation Promulgation

For the reasons stated in the preamble, we propose to further amend title 50, chapter I, subchapter B, part 10 of the Code of Federal Regulations, as proposed to be amended at 83 FR 61288 (November 28, 2018), as set forth below:

PART 10—GENERAL PROVISIONS

■ 1. The authority citation continues to read as follows:

Authority: 16 U.S.C. 668a–d, 703–712, 742a–j–l, 1361–1384, 1401–1407, 1531–1543, 3371–3378; 18 U.S.C. 42; 19 U.S.C. 1202.

■ 2. Amend § 10.13, as proposed to be amended on November 28, 2018 (83 FR 61288), as follows:

■ a. By revising the introductory text of paragraph (c);

■ b. In paragraph (c)(1), by:

■ i. Under the entry DOVE, adding, in alphabetical order, the words ''Common Ground, *Columbina passerina*'' and ''Ruddy Ground, *Columbina talpacoti*'';

■ ii. Under the entry GRASSQUIT, removing the words ''Black-faced, *Tiaris bicolor*'' and adding in their place the words ''Black-faced, *Melanospiza bicolor*'';

■ iii. Under the entry GROUND-DOVE, by:

■ *1.* Removing the words ''Common, *Columbina passerina*'';

■ *2.* Removing the words ''Ruddy, *Columbina talpacoti*''*;* and
■ *3.* Removing the words ''White-throated, *Alopecoenas xanthonura*'' and adding in their place the words ''White-throated, *Alopecoenas xanthonurus*''*;*
■ iv. Under the entry HAWK, adding, in alphabetical order, the words ''Great Black, *Buteogallus urubitinga*''*;*
■ v. Under the entry HUMMINGBIRD, removing the words ''Amethyst-throated, *Lampornis amethystinus*'' and ''Blue-throated, *Lampornis clemenciae*''*;*
■ vi. Adding, in alphabetical order, an entry MOUNTAIN-GEM, and adding ''Amethyst-throated, *Lampornis amethystinus*'' and ''Blue-throated, *Lampornis clemenciae*'' under that entry;
■ vii. Under the entry ORIOLE, adding, in alphabetical order, the words ''Black-backed, *Icterus abeillei*''*;*
■ viii. Under the entry PETREL, by:
■ *1.* Adding, in alphabetical order, the words ''Gray-faced, *Pterodroma gouldi*''*;* and
■ *2.* Removing the words ''Great-winged, *Pterodroma macroptera*''*;*
■ ix. Under the entry ROBIN, adding, in alphabetical order, the words ''European, *Erithacus rubecula*''*;*
■ x. Under the entry ROSEFINCH, adding, in alphabetical order, the words ''Pallas's, *Carpodacus roseus*''*;*
■ xi. Under the entry SCOTER, by:
■ *1.* Adding, in alphabetical order, the words ''Stejneger's, *Melanitta stejnegeri*''*;* and
■ *2.* Removing the words ''White-winged, *Melanitta fusca*'' and adding in their place the words ''White-winged, *Melanitta deglandi*''*;*
■ xii. Revising the entry STORM-PETREL;
■ xiii. Under the entry TURTLE-DOVE, removing the words ''European, *Streptopelia turtur*''*;*
■ xiv. Under the entry WARBLER, by:
■ *1.* Removing the words ''Colima, *Oreothlypis crissalis*'' and adding in their place the words ''Colima, *Leiothlypis crissalis*''*;*
■ *2.* Removing the words ''Lucy's, *Oreothlypis luciae*'' and adding in their place the words ''Lucy's, *Leiothlypis luciae*''*;*
■ *3.* Removing the words ''Nashville, *Oreothlypis ruficapilla*'' and adding in their place the words ''Nashville, *Leiothlypis ruficapilla*''*;*
■ *4.* Removing the words ''Orange-crowned, *Oreothlypis celata*'' and adding in their place the words ''Orange-crowned, *Leiothlypis celata*''*;*
■ *5.* Adding, in alphabetical order, the words ''River, *Locustella fluviatilis*''*;*
■ *6.* Removing the words ''Tennessee, *Oreothlypis peregrina*'' and adding in their place the words ''Tennessee, *Leiothlypis peregrina*''*;*
■ *7.* Adding, in alphabetical order, the words ''Thick-billed, *Arundinax aedon*''*;* and
■ *8.* Removing the words ''Virginia's, *Oreothlypis virginiae*'' and adding in their place the words ''Virginia's, *Leiothlypis virginiae*''*;*
■ xv. Under the entry WHEATEAR, adding, in alphabetical order, the words ''Pied, *Oenanthe pleschanka*''*;* and
■ xvi. Revising the entry WOODSTAR.
■ c. In paragraph (c)(2), by:
■ i. Under the entries Order ANSERIFORMES, Family ANATIDAE, Subfamily ANATINAE, by:
■ *1.* Removing the words ''*Melanitta fusca,* White-winged Scoter'' and adding in their place the words ''*Melanitta deglandi,* White-winged Scoter''; and
■ *2.* Immediately following the words ''*Melanitta deglandi,* White-winged Scoter'', adding the words ''*Melanitta stejnegeri,* Stejneger's Scoter'';
■ ii. Under the entries Order COLUMBIFORMES, Family COLUMBIDAE, by:
■ *1.* Removing the words ''*Alopecoenas xanthonura,* White-throated Ground-Dove'' and adding in their place the words ''*Alopecoenas xanthonurus,* White-throated Ground-Dove'';
■ *2.* Removing the words ''*Streptopelia turtur,* European Turtle-Dove'';
■ *3.* Removing the words ''*Columbina passerina,* Common Ground-Dove'' and adding in their place the words ''*Columbina passerina,* Common Ground Dove''; and
■ *4.* Removing the words ''*Columbina talpacoti,* Ruddy Ground-Dove'' and adding in their place the words ''*Columbina talpacoti,* Ruddy Ground Dove'';
■ iii. Under the entries Order APODIFORMES, Family TROCHILIDAE, Subfamily TROCHILINAE, by:
■ *1.* Removing the words ''*Lampornis amethystinus,* Amethyst-throated Hummingbird'' and adding in their place the words ''*Lampornis amethystinus,* Amethyst-throated Mountain-gem'';
■ *2.* Removing the words ''*Lampornis clemenciae,* Blue-throated Hummingbird'' and adding in their place the words ''*Lampornis clemenciae,* Blue-throated Mountain-gem''; and
■ *3.* Removing the words ''*Calliphlox evelynae,* Bahama Woodstar'' and adding in their place the words ''*Nesophlox evelynae,* Bahama Woodstar'';
■ iv. Under the entry Order PROCELLARIIFORMES, by:
■ *1.* Revising the entry for Family HYDROBATIDAE; and
■ *2.* Under entry Family PROCELLARIIDAE, by:
■ A. Immediately following the words ''*Fulmarus glacialis,* Northern Fulmar'', adding the words ''*Pterodroma gouldi,* Gray-faced Petrel''; and
■ B. Removing the words ''*Pterodroma macroptera,* Great-winged Petrel''.
■ v. Under the entries Order ACCIPITRIFORMES, Family ACCIPITRIDAE, Subfamily ACCIPITRINAE, immediately following the words ''*Buteogallus anthracinus,* Common Black Hawk'', adding the words ''*Buteogallus urubitinga,* Great Black Hawk''; and
■ vi. Under the entry Order PASSERIFORMES, by:
■ *1.* Immediately following the words ''Family ACROCEPHALIDAE'', adding the words ''*Arundinax aedon,* Thick-billed Warbler'';
■ *2.* Under entry Family LOCUSTELLIDAE, immediately following the words ''*Locustella ochotensis,* Middendorff's Grasshopper-Warbler'', adding the words ''*Locustella fluviatilis,* River Warbler'';
■ *3.* Under entry Family MUSCICAPIDAE, by:
■ A. Immediately following the words ''*Muscicapa sibirica,* Dark-sided Flycatcher'', adding the words ''*Erithacus rubecula,* European Robin''; and
■ B. Immediately following the words ''*Oenanthe oenanthe,* Northern Wheatear'', adding the words ''*Oenanthe pleschanka,* Pied Wheatear'';
■ *4.* Under entries Family FRINGILLIDAE, Subfamily CARDUELINAE, immediately following the words ''*Carpodacus erythrinus,* Common Rosefinch'', adding the words ''*Carpodacus roseus,* Pallas's Rosefinch'';
■ *5.* Under entries Family ICTERIDAE, Subfamily ICTERINAE, immediately following the words ''*Icterus galbula,* Baltimore Oriole'', adding the words ''*Icterus abeillei,* Black-backed Oriole'';
■ *6.* Under entry Family PARULIDAE, by:
■ A. Removing the words ''*Oreothlypis peregrina,* Tennessee Warbler'' and adding in their place the words ''*Leiothlypis peregrina,* Tennessee Warbler'';
■ B. Removing the words ''*Oreothlypis celata,* Orange-crowned Warbler'' and adding in their place the words ''*Leiothlypis celata,* Orange-crowned Warbler'';
■ C. Removing the words ''*Oreothlypis crissalis,* Colima Warbler'' and adding in their place the words ''*Leiothlypis crissalis,* Colima Warbler'';
■ D. Removing the words ''*Oreothlypis luciae,* Lucy's Warbler'' and adding in their place the words ''*Leiothlypis luciae,* Lucy's Warbler'';

■ E. Removing the words ''*Oreothlypis ruficapilla,* Nashville Warbler'' and adding in their place the words ''*Leiothlypis ruficapilla,* Nashville Warbler''; and

■ F. Removing the words ''*Oreothlypis virginiae,* Virginia's Warbler'' and adding in their place the words ''*Leiothlypis virginiae,* Virginia's Warbler''; and

■ *7.* Under entries Family THRAUPIDAE, Subfamily COEREBINAE, removing the words ''*Tiaris bicolor,* Black-faced Grassquit'' and adding in their place the words ''*Melanospiza bicolor,* Black-faced Grassquit''.

The revisions and additions read as follows:

§ 10.13 List of Migratory Birds.

* * * * *

(c) *What species are protected as migratory birds?* Species protected as migratory birds are listed in two formats to suit the varying needs of the user: Alphabetically in paragraph (c)(1) of this section and taxonomically in paragraph (c)(2) of this section. Taxonomy and nomenclature generally follow the 7th edition of the American Ornithologists' Union's (AOU, now recognized as American Ornithological Society (AOS)) *Check-list of North American birds* (1998, as amended through 2019). For species not treated by the AOS *Check-list,* we generally follow *Clements Checklist of Birds of the World* (Clements *et al.* 2017).

(1) * * *

* * * * *

DOVE, Common Ground, *Columbina passerina*

* * * * *

Ruddy Ground, *Columbina talpacoti*

* * * * *

HAWK, * * *

Great Black, *Buteogallus urubitinga*

* * * * *

MOUNTAIN-GEM, Amethyst-throated, *Lampornis amethystinus*

Blue-throated, *Lampornis clemenciae*

* * * * *

ORIOLE, * * *

Black-backed, *Icterus abeillei*

* * * * *

PETREL, * * *

Gray-faced, *Pterodroma gouldi*

* * * * *

ROBIN, * * *

European, *Erithacus rubecula*

* * * * *

ROSEFINCH, * * *

Pallas's, *Carpodacus roseus*

* * * * *

SCOTER, * * *

Stejneger's, *Melanitta stejnegeri*

* * * * *

STORM-PETREL, Ashy, *Hydrobates homochroa*

Band-rumped, *Hydrobates castro*

Black, *Hydrobates melania*

Black-bellied, *Fregetta tropica*

European, *Hydrobates pelagicus*

Fork-tailed, *Hydrobates furcatus*

Leach's, *Hydrobates leucorhous*

Least, *Hydrobates microsoma*

Matsudaira's, *Oceanodroma matsudairae*

Polynesian, *Nesofregetta fuliginosa*

Ringed, *Hydrobates hornbyi*

Swinhoe's, *Hydrobates monorhis*

Townsend's, *Hydrobates socorroensis*

Tristram's, *Hydrobates tristrami*

Wedge-rumped, *Hydrobates tethys*

White-bellied, *Fregetta grallaria*

White-faced, *Pelagodroma marina*

Wilson's, *Oceanites oceanicus*

* * * * *

WARBLER, * * *

River, *Locustella fluviatilis*

* * * * *

Thick-billed, *Arundinax aedon*

* * * * *

WHEATEAR, * * *

Pied, *Oenanthe pleschanka*

* * * * *

WOODSTAR, Bahama, *Nesophlox evelynae*

* * * * *

(2) * * *

Order ANSERIFORMES

Family ANATIDAE

* * * * *

Subfamily ANATINAE

* * * * *

Melanitta stejnegeri, Stejneger's Scoter

* * * * *

Order PROCELLARIIFORMES

* * * * *

Family HYDROBATIDAE

Hydrobates pelagicus, European Storm-Petrel

Fregetta grallaria, White-bellied Storm-Petrel

Nesofregetta fuliginosa, Polynesian Storm-Petrel

Hydrobates furcatus, Fork-tailed Storm-Petrel

Hydrobates hornbyi, Ringed Storm-Petrel

Hydrobates monorhis, Swinhoe's Storm-Petrel

Hydrobates leucorhous, Leach's Storm-Petrel

Hydrobates socorroensis, Townsend's Storm-Petrel

Hydrobates homochroa, Ashy Storm-Petrel

Hydrobates castro, Band-rumped Storm-Petrel

Hydrobates tethys, Wedge-rumped Storm-Petrel

Oceanodroma matsudairae, Matsudaira's Storm-Petrel

Hydrobates melania, Black Storm-Petrel

Hydrobates tristrami, Tristram's Storm-Petrel

Hydrobates microsoma, Least Storm-Petrel

* * * * *

Family PROCELLARIIDAE

* * * * *

Pterodroma gouldi, Gray-faced Petrel

* * * * *

Order ACCIPITRIFORMES

* * * * *

Family ACCIPITRIDAE

* * * * *

Subfamily ACCIPITRINAE

* * * * *

Buteogallus urubitinga, Great Black Hawk

* * * * *

Order PASSERIFORMES

* * * * *

Family ACROCEPHALIDAE

Arundinax aedon, Thick-billed Warbler

* * * * *

Family LOCUSTELLIDAE

* * * * *

Locustella fluviatilis, River Warbler

* * * * *

Family MUSCICAPIDAE

* * * * *

Erithacus rubecula, European Robin

* * * * *

Oenanthe pleschanka, Pied Wheatear

* * * * *

Family FRINGILLIDAE

* * * * *

Subfamily CARDUELINAE

* * * * *

Carpodacus roseus, Pallas's Rosefinch

* * * * *

Family ICTERIDAE

* * * * *

Subfamily ICTERINAE

* * * * *

Icterus abeillei, Black-backed Oriole

* * * * *

Dated: September 26, 2019.

Rob Wallace,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2019–22978 Filed 11–8–19; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Ms. Catherine Phillips
Field Supervisor
Ecological Services Field Office
1601 Balboa Avenue
Panama City, Florida 32405-3792

Dear Ms. Phillips:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

The Council on Environmental Quality (CEQ), Regulations on Implementing National Environmental Policy Act Procedures (NEPA) (40 CFR 1500-1508) emphasizes agency cooperation early in the NEPA process through the establishment of Cooperating Agency status. In essence, any Federal or State agency which has jurisdiction over activities to be considered in the EA has the opportunity to serve as a Cooperating Agency.

Responsibilities of a Cooperating Agency include but are not limited to provision of data and/or information, and review of the preliminary draft EA for completeness. Information relative to the rights and responsibilities of lead and cooperating agencies may be found in CEQ Forty Most Asked Questions Concerning CEQ's NEPA Regulations (http://ceq.eh.doe.gov/nepa/regs/40).

As lead agency in the preparation of the EA, Mobile District is requesting your participation as a cooperating agency in this effort and would appreciate a confirmation of your willingness to do so. We look forward to working with you on this project. Should you have any questions, please contact Mr. Larry Parson at larry.e.parson@usace.army.mil or via phone at (251) 690-3139 or Ms. Kathleen McConnell via phone at (251) 694-3804 or via email at kathleen.k.mcconnell@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Dr. Roy E. Crabtree
Regional Administrator
NOAA Fisheries
Southeast Regional Office
Protected Resources Division
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Dr. Crabtree:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

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Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Ms. Virginia M. Fay
Assistant Regional Administrator
National Marine Fisheries Service
Southeast Regional Office
Habitat Conservation Division
263 13th Avenue South
St. Petersburg, Florida 33701-5505

Dear Ms. Fay:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

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As lead agency in the preparation of the EA, Mobile District is requesting your participation as a cooperating agency in this effort and would appreciate a confirmation of your willingness to do so. We look forward to working with you on this project. Should you have any questions, please contact Mr. Larry Parson at larry.e.parson@usace.army.mil or via phone at (251) 690-3139 or Ms. Kathleen McConnell via phone at (251) 694-3804 or via email at kathleen.k.mcconnell@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Ms. Mary S. Walker
Acting Regional Administrator
U.S. EPA, Region 4
Sam Nunn Federal Building
61 Forsyth Street South West
Atlanta, Georgia 30303

Dear Ms. Walker:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

The Council on Environmental Quality (CEQ), Regulations on Implementing National Environmental Policy Act Procedures (NEPA) (40 CFR 1500-1508) emphasizes agency cooperation early in the NEPA process through the establishment of Cooperating Agency status. In essence, any Federal or State agency which has jurisdiction over activities to be considered in the EA has the opportunity to serve as a Cooperating Agency.

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As lead agency in the preparation of the EA, Mobile District is requesting your participation as a cooperating agency in this effort and would appreciate a confirmation of your willingness to do so. We look forward to working with you on this project. Should you have any questions, please contact Mr. Larry Parson at larry.e.parson@usace.army.mil or via phone at (251) 690-3139 or Ms. Kathleen McConnell via phone at (251) 694-3804 or via email at kathleen.k.mcconnell@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Mr. Daniel R. Brown
Superintendent
Gulf Islands National Seashore
1801 Gulf Breeze Parkway
Gulf Breeze, Florida 32563

Dear Mr. Brown:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

The Council on Environmental Quality (CEQ), Regulations on Implementing National Environmental Policy Act Procedures (NEPA) (40 CFR 1500-1508) emphasizes agency cooperation early in the NEPA process through the establishment of Cooperating Agency status. In essence, any Federal or State agency which has jurisdiction over activities to be considered in the EA has the opportunity to serve as a Cooperating Agency.

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As lead agency in the preparation of the EA, Mobile District is requesting your participation as a cooperating agency in this effort and would appreciate a confirmation of your willingness to do so. We look forward to working with you on this project. Should you have any questions, please contact Mr. Larry Parson at larry.e.parson@usace.army.mil or via phone at (251) 690-3139 or Ms. Kathleen McConnell via phone at (251) 694-3804 or via email at kathleen.k.mcconnell@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Mr. Daniel B. Robeen
Chief, Engineering Division - NH-04
96th Civil Engineer Group
501 DeLeon Street, Suite 100
Eglin AFB, Florida 32542

Dear Mr. Robeen:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

The Council on Environmental Quality (CEQ), Regulations on Implementing National Environmental Policy Act Procedures (NEPA) (40 CFR 1500-1508) emphasizes agency cooperation early in the NEPA process through the establishment of Cooperating Agency status. In essence, any Federal or State agency which has jurisdiction over activities to be considered in the EA has the opportunity to serve as a Cooperating Agency.

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Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Ms. Gracia B. Szczech
Regional Director
Federal Emergency Management Agency, Region 4
3003 Chamblee Tucker Road
Atlanta, Georgia 30341

Dear Ms. Szczech:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

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Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

FEB 0 6 2019

Coastal Environment Team
Planning and Environmental Division

Mr. Thomas Doyle
Deputy Director - Ecologist
USGS Wetland and Aquatic Research Center
700 Cajundome Boulevard
Lafayette, Louisiana 70506

Dear Mr. Doyle:

As you may be aware, the U.S. Army Corps of Engineers, Mobile District plans to prepare an Environmental Assessment (EA) for study activities pertaining to the Okaloosa County Coastal Storm Reduction Management project located along the shoreline of Okaloosa County, Florida.

The Council on Environmental Quality (CEQ), Regulations on Implementing National Environmental Policy Act Procedures (NEPA) (40 CFR 1500-1508) emphasizes agency cooperation early in the NEPA process through the establishment of Cooperating Agency status. In essence, any Federal or State agency which has jurisdiction over activities to be considered in the EA has the opportunity to serve as a Cooperating Agency.

Responsibilities of a Cooperating Agency include but are not limited to provision of data and/or information, and review of the preliminary draft EA for completeness. Information relative to the rights and responsibilities of lead and cooperating agencies may be found in CEQ Forty Most Asked Questions Concerning CEQ's NEPA Regulations (http://ceq.eh.doe.gov/nepa/regs/40).

As lead agency in the preparation of the EA, Mobile District is requesting your participation as a cooperating agency in this effort and would appreciate a confirmation of your willingness to do so. We look forward to working with you on this project. Should you have any questions, please contact Mr. Larry Parson at larry.e.parson@usace.army.mil or via phone at (251) 690-3139 or Ms. Kathleen McConnell via phone at (251) 694-3804 or via email at kathleen.k.mcconnell@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE OHIO

MEMORANDUM FOR U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT
ATTN: Mr. Curtis M. Flakes
Chief, Planning and Environmental Division
P.O. Box 2288
Mobile AL 36628-0001

APR 04 2019

FROM: AFMC/A4/10/A4C
4225 Logistics Ave, Bldg. 262, Room A107
Wright-Patterson Air Force Base (AFB) OH 45433-5332

SUBJECT: U.S. Air Force (USAF) Acceptance on a Coopeating Agency (CA) Request for Assistance on an Environmental Assessment (EA) along the Okaloosa Co. Shoreline, Florida

1. In reply to your letter dated 6 Feb 19, the USAF accepts being a formal CA in preparation of the Okaloosa Co. Coastal Storm Reduction Management EA, studying activities occurring along the shoreline. It is appropriate for the USAF to participate in this analysis, as Eglin AFB conducts flight testing and training at Santa Rosa Island and throughout the Gulf of Mexico.

2. As prescribed in the President's Council on Environmental Quality National Environmental Policy Act (NEPA) regulations, 40 Code of Federal Regulations §§ 1501.5 and 1501.6, the USAF will:

a) Particpate throughout the course of NEPA beginning with the scoping process and development of the description of proposed action and alternatives to be analyzed;
b) Assume responsibility, upon request by your organization, for developing/sharing information and preparing analyses on issues for which the USAF has special expertise; and
c) Make staff available for interdisciplinary reviews of draft/final documents as they become available.

3. The USAF requests to be provided appropriate, related information in a timely fashion to ensure unnecessary delays are avoided. In turn, the USAF will respond in a timely fashion. The primary point of contact at Eglin AFB will be Mrs. Kelly Knight, 96 CEG/CEIEA, (850) 882-7691, kelly.knight.7@us.af.mil. For further questions regarding this memo, the AFMC NEPA Liaison is Ms. Shari Fort, AFIMSC/Det-6, who can be reached at 937-656-2926 or shari.fort@us.af.mil.

RONALD J. ONDERKO, P.E.
Command Senior Civil Engineer
Logistics, Civil Engineering and Force Protection

cc:
HQ USAF/A4CI
AFCEC/CZN
AFLOA/JACE
96 CEG/CEI

From:	Vickery, Greg
To:	Flakes, Curtis M CIV (US)
Cc:	Parson, Larry E CIV CESAM CESAD (US); McConnell, Kathleen Komp CIV (USA); Gainer, Phillip; Perdue, Jared; Smith, Tim; Cleveland, Colby; Altieri, Linda; Johnson, Carter; Satter, Ian
Subject:	[Non-DoD Source] Okaloosa County Storm Risk Management Study (W014846)
Date:	Monday, April 22, 2019 10:58:42 AM

Florida Department of Transportation

District Three Administration Building

Office of the District Secretary

Post Office Box 607

Chipley, Florida 32428-0607

April 22, 2019

Mr. Curtis M. Flakes

Chief, Planning and Environmental Division

U.S. Army Corps of Engineers

Post Office Box 2288

Mobile, Alabama 36628-0001

Subject: Okaloosa County Storm Risk Management Study

Dear Chief Flakes:

We received your letter on February 12, 2019 regarding the proposed commencement of an Environmental Assessment in Okaloosa County. At this time, we request to be a participating agency as the alternatives and scope of work are still in development. Further, our agency will defer the decision on being a cooperating agency until such time as it is deemed alternatives may affect the District's transportation system.

Thank you again for your notification. If you have any questions, please do not hesitate to contact Colby Cleveland, P.E., District Environmental Management Engineer, toll-free at 1-888-638-0250, extension 1538 or via e-mail at colby.cleveland@dot.state.fl.us <mailto:colby.cleveland@dot.state.fl.us> .

Sincerely,

/s/ Phillip Gainer

Phillip Gainer, P.E.

District Secretary

PG/JP/TS/CC/gv

From: McConnell, Kathleen Komp CIV (USA) <Kathleen.K.Mcconnell@usace.army.mil>
Sent: Monday, February 11, 2019 1:49 PM
To: Irick, Kelly A <Kelly_Irick@nps.gov>
Cc: Parson, Larry E CIV CESAM CESAD (US) <Larry.E.Parson@usace.army.mil>
Subject: [EXTERNAL] RE: [Non-DoD Source] EA_ Okaloosa Co Coastal Storm Reduction Management Project (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Ms. Irick:

Since you have received the letter requesting your participation as a cooperating agency which was sent to Mr. Dan Brown, we will put you on the list and will keep you informed of meetings and other activities as they arise.

Thank you for your interest in the Okaloosa County CSRM project.

Kathleen "Kat" McConnell
Biologist, CESAM-PD-EC
PO Box 2288
Mobile, AL 36628-0001
251.694.3804 desk
kathleen.k.mcconnell@usace.army.mil

-----Original Message-----
From: Irick, Kelly [mailto:kelly_irick@nps.gov]
Sent: Monday, February 11, 2019 1:43 PM
To: Parson, Larry E CIV CESAM CESAD (US) <Larry.E.Parson@usace.army.mil>; McConnell, Kathleen Komp CIV (USA) <Kathleen.K.Mcconnell@usace.army.mil>
Subject: [Non-DoD Source] EA_ Okaloosa Co Coastal Storm Reduction Management Project

Hi Larry/Kathleen - We received a notice that an EA will be prepared for Okaloosa Co Coastal Storm Reduction Management project. We believe this project may be within park water boundaries and would like to participate as a cooperating agency in this effort. Please let me know what the next steps are.

Thanks,
Kelly Irick, Natural Resource Manager
Gulf Islands National Seashore
1801 Gulf Breeze Parkway
Gulf Breeze, FL 32563
850-916-3011 (Office)
850-232-3620 (Cell)

CLASSIFICATION: UNCLASSIFIED

From: KNIGHT, KELLY E GS-12 USAF AFMC 96 CEG/CEIEA
To: Mcconnell, Kathleen Komp (Kat) CIV USARMY CESAM (USA); Jacobson, Jennifer L CIV USARMY CESAM (USA)
Cc: ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA; RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA
Subject: RE: INTEGRATED DRAFT FEASIBILITY REPORT WITH ENVIRONMENTAL ASSESSMENT OKALOOSA COUNTY COASTAL STORM RISK MANAGEMENT - U.S. Army Corps of Engineers, Mobile District Public Notice
Date: Wednesday, February 17, 2021 11:40:55 AM

Good morning Kat and Jennifer,

Appreciate your coordination with us over the past year on this project, we (Eglin Environmental Planning Office [EPO]) sent out the EA for review to over 50 subject matter experts (SMEs). Eglin's EPO received no responses from the majority of SMEs, but explicitly received "no comments or concerns" remarks from the following personnel listed below. We would also like to request a copy of the Final EA and FONSI once it's completed for our records. If you have any questions, please let me know.

- ARNOLD, WILLIAM S GS-12 USAF AFMC 96 CEG/CEIEA
- AVERETT, JOHN A NH-03 USAF AFMC 96 TW/JAV
- BARNDOLLAR, GLENN R GS-12 USAF AFMC 96 RANSS/RNRS
- CALHOUN, LEVETTE W CIV USAF 96 MDG
- CSASZAR, AILIE M GS-12 USAF AFMC 96 CEG/CEIEC
- FELIX, RODNEY K JR CIV USAF AFMC 96 CEG/CEIEA
- GARGER, CHARLES W JR GS-11 USAF AFMC 96 OSS/OSXR
- GOULD, DAVID T CIV USAF AFMC 96 TW/XPO
- GUSTAFSON, JOHN M NH-03 USAF AFMC 796 CES/CL
- KAUFFMAN, STEPHEN M GS-11 USAF AFMC 96 CEG/CEIEC
- LANGLEY, TIMOTHY C GS-12 USAF AFMC 96 CEG/CEIEC
- PERKINS, VICKIE M NH-02 USAF AFMC 96 TW/SE

V/R

Kelly Knight
Environmental Planning Office
Cell: 850.982.6583
Email: kelly.knight.7@us.af.mil

From: KNIGHT, KELLY E GS-12 USAF AFMC 96 CEG/CEIEA
Sent: Wednesday, January 20, 2021 1:30 PM
Subject: FW: INTEGRATED DRAFT FEASIBILITY REPORT WITH ENVIRONMENTAL ASSESSMENT OKALOOSA COUNTY COASTAL STORM RISK MANAGEMENT - U.S. Army Corps of Engineers, Mobile District Public Notice

All,

We received a notice from the USACE in regards to the Coastal Storm Risk Management Feasibility Report and Environmental Assessment for Okaloosa County. Okaloosa County's Proposed Action is for berm and dune nourishment along the shoreline of Okaloosa County in two areas; about 17,000 feet in the Okaloosa Island reach and 16,000 feet in the West Destin reach. Please see link below and attached public notice. Comments to the USACE must be received by **16 Feb 21**. Please forward to anyone who may need to review the County's proposed plan.

https://www.sam.usace.army.mil/Portals/46/docs/planning_environmental/docs/PN/Okaloosa%20CSRM%20Draft%20FR%20and%20EA_01-15-2021.pdf?ver=0ClfNxRUh4IG6Y9lGJfGEA%3d%3d

V/R

Kelly Knight
Environmental Planning Office
Email: kelly.knight.7@us.af.mil

From: Mcconnell, Kathleen Komp (Kat) CIV USARMY CESAM (USA) <Kathleen.K.Mcconnell@usace.army.mil>
Sent: Friday, January 15, 2021 1:58 PM
Subject: U.S. Army Corps of Engineers, Mobile District Public Notice

The purpose of this message is to notify you of a Federal project Public Notice from the U.S. Army Corps of Engineers, Mobile District.

NOTICE OF AVAILABILITY OF THE
INTEGRATED DRAFT FEASIBILITY REPORT WITH ENVIRONMENTAL ASSESSMENT OKALOOSA COUNTY COASTAL STORM RISK MANAGEMENT
OKALOOSA COUNTY, FLORIDA

To print or download an electronic copy of this Public Notice please click this link:
http://www.sam.usace.army.mil/Portals/46/docs/planning_environmental/docs/PN//01112021_OCCSRM_NOA_010821_lr_REVISED_3_.pdf?ver=ps9LU4-u9K6yKYjp3lc8HQ%3d%3d
You will also be able to find supporting environmental documentation related to the Public Notice such as a draft EA and FONSI on our website. http://www.sam.usace.army.mil/Missions/PlanningEnvironmental/PublicNotices.aspx

The Mobile District is required by Federal regulations to issue Public Notices to solicit public comments on Federal Civil Works projects. The comment period is typically 15 or 30 days depending on the scope of the project and is referenced in the Public Notice. If you have any comments on this project, please mail or e-mail your comments to the Project Manager referenced in the Public Notice.
Do not respond to this e-mail.

The Mobile District maintains an overall mailing list of interested agencies, businesses, organizations, and individuals which we are required to update on a regular basis. If you would like to be removed from this distribution list or know someone who would like to be added to our list, please notify the Project Manager.

Kathleen "Kat" McConnell
Biologist, CESAM-PD-EC
251.694.3804 desk
251.323.2533 cell

Mcconnell, Kathleen Komp (Kat) CIV USARMY CESAM (USA)

From: Jacobson, Jennifer L CIV USARMY CESAM (USA)
Sent: Monday, April 19, 2021 10:56 AM
To: Reynolds, Lekesha W CIV USARMY CESAM (USA); Mcconnell, Kathleen Komp (Kat) CIV USARMY CESAM (USA)
Subject: FW: State Clearance Letter for FL202103019142C - Draft Coastal Storm Risk Management Integrated Feasibility Study and Environmental Assessment, Okaloosa County, Florida.
Attachments: Okaloosa Co. CSRM copy.docx; Okaloosa County Coastal Storm Risk Management Draft EA and Feasibility Report 43408 02172021.pdf

See attached and below email.

From: Stahl, Chris <Chris.Stahl@dep.state.fl.us>
Sent: Monday, April 19, 2021 8:29 AM
To: Jacobson, Jennifer L CIV USARMY CESAM (USA) <Jennifer.L.Jacobson@usace.army.mil>
Cc: State_Clearinghouse <State.Clearinghouse@dep.state.fl.us>; 'FWC Conservation Planning Services' <FWCConservationPlanningServices@myfwc.com>; Dow, Roxane <Roxane.Dow@FloridaDEP.gov>
Subject: [Non-DoD Source] State Clearance Letter for FL202103019142C - Draft Coastal Storm Risk Management Integrated Feasibility Study and Environmental Assessment, Okaloosa County, Florida.

April 19, 2021

Jenny Jacobson
US Army Corps Of Engineers – Mobile District
Planning & Environmental Division
109 St. Joseph Street
Mobile, Alabama 36602

RE: Department of the Army, Mobile District Corps of Engineers - Draft Coastal Storm Risk Management Integrated Feasibility Study and Environmental Assessment, Okaloosa County, Florida.
SAI # FL202103019142C

Dear Jenny:

Florida State Clearinghouse staff has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) under the following authorities: Presidential Executive Order 12372; § 403.061(42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

The Florida Department of Environmental Protection's Northwest District has reviewed the proposal and noted that there is an environmental justice component noted in Section 3.7.2 (Page 3-27 and 3-27) that incorrectly indicates that the Fort Walton Beach Hollywood Boulevard Light Industrial District is a USEPA-designated brownfield site. This is actually a Designated Brownfield Area created by The City of Fort Walton Beach in accordance with Section 376.80(1), Florida Statutes, as noted in Appendix C, Page C-12 of the document. Staff noted further that Environmental Resource Permits will likely be required for the proposed work.

Additional comments have been independently provided by DEP's Beaches Division and the Florida Fish and Wildlife Conservation Commission which are attached and incorporated hereto.

Based on the information submitted and minimal project impacts, the subject project is consistent with the Florida Coastal Management Program (FCMP). The state's final concurrence of the project's consistency with the FCMP will be determined during any environmental permitting processes, in accordance with Section 373.428, Florida Statutes, if applicable.

Thank you for the opportunity to review the proposed project. We look forward to continued coordination with USACE staff to resolve the foregoing issues and offers its assistance in amending the proposal to ensure consistency with Chapters 161, 253 and 373, F.S. If you have any questions or need further assistance, please don't hesitate to contact me at (850) 717-9076.
Sincerely,

Chris Stahl

Chris Stahl, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3800 Commonwealth Blvd., M.S. 47
Tallahassee, FL 32399-2400
ph. (850) 717-9076
State.Clearinghouse@floridadep.gov

Florida Fish and Wildlife Conservation Commission

Commissioners
Rodney Barreto
Chairman
Coral Gables

Michael W. Sole
Vice Chairman
Tequesta

Steven Hudson
Fort Lauderdale

Gary Lester
Oxford

Gary Nicklaus
Jupiter

Sonya Rood
St. Augustine

Robert A. Spottswood
Key West

Office of the
Executive Director
Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

850-487-3796
850-921-5786 FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: 850-488-4676

Hearing/speech-impaired:
800-955-8771 (T)
800 955-8770 (V)

MyFWC.com

February 17, 2021

Jennifer Jacobson, Chief
Environment and Resources Branch
U.S. Army Corps of Engineers, Mobile District
PO Box 2288
Mobile, AL 36628-0001
Jennifer.L.Jacobson@usace.army.mil

Re: Okaloosa County Coastal Storm Risk Management Draft Integrated Feasibility Report and Environmental Assessment, Department of the Army Corps of Engineers

Dear Ms. Jacobsen:

Florida Fish and Wildlife Conservation Commission (FWC) staff reviewed the above-referenced project and provides the following comments and recommendations for your consideration in accordance with Chapter 379, Florida Statutes, the National Environmental Policy Act (NEPA), and the Coastal Zone Management Act/Florida's Coastal Management Program.

Project Description

The U.S. Army Corps of Engineers (USACE), Mobile District, has prepared a Draft Integrated Feasibility Report and Environmental Assessment (DEA) for the Okaloosa County Coastal Storm Risk Management (CSRM) Feasibility Study to determine the extent of coastal storm related damages from the 2017 hurricane season and to assess potential alternatives to reduce coastal storm risk in Okaloosa County. The Tentatively Selected Plan (TSP) proposes dredging offshore borrow areas to construct sand berms and dunes along two reaches of coastal shoreline in Okaloosa County. The 3-mile Okaloosa Island reach is located completely within the Gulf Islands National Seashore, between John Beasley Park and Eglin Air Force Base and Florida Department of Environmental Protection (FDEP) monuments R-1 and R16. The 3.2-mile West Destin reach stretches from East Pass to the western boundary of Henderson Beach State Park, between FDEP monuments R17 and R45. Land covers on the project sites consist of sand beach and coastal swales.

The DEA evaluated three final alternatives, including a "No Action Alternative," with beach nourishment plus raising and widening the dunes selected as the TSP. Under the TSP, sands will be dredged from offshore borrow areas, transported to the project sites using pipelines, and redistributed using heavy equipment such as bulldozers. The proposed project would deposit approximately 100,000 cubic yards of fill material within the Okaloosa Island reach and approximately 900,000 cubic yards of fill material within the West Destin reach. The initial construction is scheduled to take place in 2025 and the TSP includes four subsequent nourishment actions to be completed on a 10-year cycle.

Potentially Affected Resources

The DEA states that the proposed project will follow terms and conditions outlined by the National Marine Fisheries Service (NMFS) in the Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges (GRBO) and Programmatic Biological Opinion for Beach Placement and Shore Protection for the State of Florida (SPBO). Also, consultation has been initiated with the U.S. Fish and Wildlife Service (USFWS) and the NMFS regarding potential impacts to federally listed species not covered by

previously issued Biological Opinions. The DEA also states that the USACE, Mobile District has determined the project is "likely to adversely affect" nesting listed sea turtles, and "may effect, but is not likely to adversely affect" the Florida manatee (*Trichechus manatus latirostris*, Federally Threatened [FT]), the piping plover (*Charadrius melodus*, FT), and the Choctawhatchee beach mouse (*Peromyscus polionotus allophrys*, Federally Endangered [FE]). According to the DEA, the project area is within Gulf sturgeon (*Acipenser oxyrinchus desotoi*, FT) Critical Habitat, but based on terms and conditions of the GRBO and SPBO, the project is "not likely to adversely affect" the species.

FWC staff also conducted a geographic information system (GIS) analysis of the project areas. Our analysis confirmed the information provided in the DEA and also found that the project areas are located near, within or adjacent to:

- Documented nesting areas for the green sea turtle (*Chelonia mydas*, (FE), and the loggerhead sea turtle (*Caretta caretta*, FT)

- Documented nesting areas for least tern (*Sternula antillarum*, ST) and snowy plover (*Charadrius nivosus*, ST)

- Potential habitat for the black skimmer (*Rynchops niger*, State Threatened [ST])

- Existing Conservation Lands:
    - Henderson Beach State Park
    - Eglin Air Force Base
    - Gulf Islands National Seashore

- Coastal Barrier Resources Unit (CBRA) – Unit P32 and Unit P32P

Comments and Recommendations

Imperiled Beach Nesting Birds and Habitat Modification

Least terns and snowy plovers have been documented nesting within the proposed West Destin project site from 2018 to 2020. The DEA suggests that a dune and berm alternative at the West Destin site may be enhanced with vegetative plantings or seed mix to promote biodiversity or to arrest erosion. Imperiled beach nesting birds (IBNB) typically nest on broad expanses of bare sand which camouflages their eggs and vegetative plantings proposed for this reach may result in the loss of existing breeding habitat. FWC shorebird staff will coordinate with FDEP staff and the applicant regarding shorebird avoidance, minimization, and any potential permitting issues relating to this project as part of Florida's Joint Coastal Permitting process. FWC's Species Action Plan for Four Imperiled Beach Nesting Birds provides additional information on restoring and enhancing habitat to support productive breeding for IBNBs (e.g. Action 7), and FWC's Breeding Bird Protocol for Florida's Seabirds and Shorebirds (https://public.myfwc.com/crossdoi/shorebirds/PDF-files/BreedingBirdProtocol.pdf) can also help provide valuable insights on population status and trends, and help guide management activities for these species.

The placement of dredged material may also attract others IBNBs such as least tern for nesting to both project sites during construction. IBNB nests have been documented on a variety of disturbed sites, including unfinished beach nourishment projects. IBNB deposit their eggs in shallow depressions or scrapes in the substrate, possibly lined with pebbles, grasses, or coquina shells. Least tern egg-laying usually begins in late April or early May. FWC staff recommends

the following measures to reduce the potential for impacts to IBNB during placement of dredge material on the project sites.

- Avoid leaving open/sandy areas with little to no activity for an extended amount of time, and,
- Utilize a qualified bird monitor (https://myfwc.com/conservation/you-conserve/wildlife/shorebirds/bird-monitor/) on the project beginning March 1 to conduct the planned surveys on a daily basis, and,
- If breeding or nesting behavior is confirmed by the presence of a scrape, eggs or young, a 300-foot buffer should be established, or a smaller, site-specific buffer ban be established through coordination with FWC Regional Species Conservation Biologist.

Sea Turtles

Nesting areas for the loggerhead and green sea turtle have been documented within the proposed project areas. According to the DEA, all efforts will be made to conduct the proposed dredging and placement activities outside of the sea turtle nesting window. The applicant is addressing any potential, unavoidable take of sea turtle nests through ongoing consultation with USFWS and the DEA states that conservation measures and recommendations specified in the GRBO and SPBO will be followed. FWC staff are available to provide technical assistance and guidance on avoidance, minimization, and sea turtle lighting issues during the Joint Coastal Permit application process.

Manatee

Florida manatees (*Trichechus manatus latirostris)* have been documented in the area of the proposed work. The DEA references the use of Manatee Protection Conditions developed by USFWS and FWC which will be implemented during dredging operations. FWC staff are available to provide technical assistance and guidance on avoidance and minimization during the Joint Coastal Permit application process.

FWC staff participated in an initial coordination meeting in 2019 for this project and appreciates the early and ongoing opportunities to provide input. FWC staff looks forward to working with the USACE throughout the NEPA processes and state permitting. If you have specific technical questions regarding the content of this letter, please contact Kristal Walsh at 850-851-8065 or by email at Kristal.Walsh@myFWC.com. All other inquiries may be sent to ConservationPlanningServices@MyFWC.com.

Sincerely,

Jason Hight
Land Use Planning Program Administrator
Office of Conservation Planning Services

jh/kw
Okaloosa County Coastal Storm Risk Management - Draft EA and Feasibility Report _43408_02172021

Cc: Kathleen McConnell, USACE, Kathleen.k.mcconnell@usace.army.mil

FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Memorandum

TO: Chris Stahl, Coordinator, Florida State Clearinghouse

FROM: Roxane Dow, Beaches Federal Coordinator

SUBJECT: DEPARTMENT OF THE ARMY, MOBILE DISTRICT CORPS OF ENGINEERS - DRAFT COASTAL STORM RISK MANAGEMENT INTEGRATED FEASIBILITY STUDY AND ENVIRONMENTAL ASSESSMENT, OKALOOSA COUNTY, FLORIDA
SAI: FL202103019142C

DATE: March 31, 2021

The staff of the Beaches programs have reviewed the draft feasibility document and would like to commend the Corps of Engineers for having conducted this exhaustive work which has developed a recommended solution that generally mirrors the previously authorized project that was defended in court. We certainly support the selected plan as its authorization would create a federal partnership going forward with these projects.

Previously, in our review of the Beach-Fx study for Walton County there were two issues that we found problematic – specifically, damage to expendable dune walkways and consideration of beach and dune recovery after each storm event. In this Okaloosa County study, we don't believe these will be problem issues. In Table 4-4 Summary of Structure Types and Inventory Values (page 4-11), 194 walkways represents 26% of the total number of impacted structures, but with a value of roughly $3.3 million, the walkways only represent less than 0.1% of the total value of structures and contents. That is too small a value to significantly influence the economic justification of the project.

In the Walton County Beach-Fx study, the Corps did not know how to adequately address beach and dune recovery following each storm's impact. In Appendix A, page A-6-6, under the Beach-Fx calibration discussion, the Corps notes, "The berm width recovery factor is a value specified by the user based on professional judgement on the site characteristics. This value represents the percentage of volume lost from the profile that is expected to be recovered. Berm width recovery values on typical beaches range from 70 to 95 percent. Through review of available pre- and post-storm surveys this

study adopts a recovery rate of 90 percent." In our review of the Walton County Beach-Fx study, we recommended a selection of beach recovery based on comparing pre- and post-storm profiles for the area being studied. In this Okaloosa County study, the Corps says they have done that, which is the basis of their recovery factor. We believe the recovery is closely aligned with the magnitude of the event and the time required for recovery prior to the next storm occurrence. The Corps has looked at data for the area and provides a basis for their recovery factor selection. If 90 percent represents the recovery from Hurricanes Opal, Ivan, and Dennis, then such a recovery factor for more frequent storm events would not be far off. The Beach-Fx model is not likely robust enough at this time to employ a variable recovery factor that depends on the storm frequency. So while the 90 percent factor may be somewhat empirical, it's a step in the right direction.

There is an error on page 4-11, where it says under 4.2.4.2. Model Assumptions, "Coastal armoring: No coastal properties are armored or will be armored in the future." That is not correct, because there is a seawall along the length of the Jetty East property between R18 and R19 and another fronting a building immediately west of R-32 in West Destin. If the seawalls are appropriately considered, it would likely mean less quantifiable damage to structures and property would occur at those specific locations, but it would not likely bring down the total damage figure by a great percentage.

It should be noted that for the overall project based on damages to the structures and the land, the benefit to cost ratio was only 0.8. In other words, expected storm damages over the 50-year life cycle were insufficient alone to justify a project. It took consideration of recreation benefits to achieve a benefit to cost ratio of 1.4, and thus result in a viable project. We believe one factor that may have reduced the expected damages in at least West Destin, was the existence of the project which had already been constructed. That may have been the reason East Destin wasn't viable. We would like to see how East Destin would have fared with consideration of the recreation benefits. It would appear to be a penalty to have an existing beach restoration project in place when conducting a federal storm risk management study. If the initial profiles for the Beach-Fx study had been the pre-project profiles, there would have been much greater damages in both West and East Destin.

Another minor oversight is the lack of inclusion of Hurricane Sally (2020) in the citing of storm events on page 2.1. Afterall, this is a January 2021 document, which should be inclusive of the 2020 tropical storm season. Should there be follow-up with some changes to the document before finalizing it with a future date, we would recommend inclusion of citing our Hurricane Sally post-storm report, which didn't go on-line until this January.

Please note that the Critical Erosion Report is updated every year and there is now a 2020 version. Also, the East Pass Inlet Management Plan was updated in 2013. It

would also be appreciated if the statewide Strategic Beach Management Plan was referenced.

The Beaches programs find the draft Coastal Storm Risk Management Integrated Feasibility Study and Environmental Assessment for Okaloosa County consistent with our authorities under the Florida Coastal Zone Management Act. Thank you for the opportunity to comment. Please contact me if you have any questions.

Cc. Lanie Edwards
Greg Garis
Bob Brantly
Ralph Clark
Guy Weeks
Fritz Wettstein